Joint Publication 3-32

Joint Maritime Operations

08 June 2018
Incorporating Change 1
20 September 2021

PREFACE

1. Scope

This publication provides fundamental principles and guidance for joint maritime operations. It describes the maritime domain; addresses considerations for establishing a joint force maritime component commander and attendant command relationships; and provides principles and guidance to plan, execute, and assess joint maritime operations.

2. Purpose

This publication has been prepared under the direction of the Chairman of the Joint Chiefs of Staff (CJCS). It sets forth joint doctrine to govern the activities and performance of the Armed Forces of the United States in joint operations, and it provides considerations for military interaction with governmental and nongovernmental agencies, multinational forces, and other interorganizational partners. It provides military guidance for the exercise of authority by combatant commanders and other joint force commanders (JFCs), and prescribes joint doctrine for operations and training. It provides military guidance for use by the Armed Forces of the United States in preparing and executing their plans and orders. It is not the intent of this publication to restrict the authority of the JFC from organizing the force and executing the mission in a manner the JFC deems most appropriate to ensure unity of effort in the accomplishment of objectives.

3. Application

a. Joint doctrine established in this publication applies to the Joint Staff, commanders of combatant commands, subordinate unified commands, joint task forces, subordinate components of these commands, the Services, the National Guard Bureau, and combat support agencies.

b. This doctrine constitutes official advice concerning the enclosed subject matter; however, the judgment of the commander is paramount in all situations.

c. If conflicts arise between the contents of this publication and the contents of Service publications, this publication will take precedence unless the CJCS, normally in coordination with the other members of the Joint Chiefs of Staff, has provided more current and specific guidance. Commanders of forces operating as part of a multinational (alliance or coalition) military command should follow multinational doctrine and procedures ratified by the United States. For doctrine and procedures not ratified by the US, commanders should evaluate and follow the multinational command's doctrine and procedures, where applicable and consistent with US law, regulations, and doctrine.

For the Chairman of the Joint Chiefs of Staff:

KEVIN D. SCOTT
Vice Admiral, USN
Director, Joint Force Development

SUMMARY OF CHANGES
REVISION OF JOINT PUBLICATION 3-32
DATED 07 AUGUST 2013

- **Changes title from *Command and Control for Joint Maritime Operations.***
- **Revises scope statement.**
- **Revises discussion of composite warfare and adds a figure on composite warfare commander organization.**
- **Revises command and control considerations for specific maritime operations.**
- **Adds a paragraph on seapower essential functions.**
- **Adds figure on operational employment constructs for amphibious ready groups and marine expeditionary units (aggregated, disaggregated, distributed).**
- **Removes discussion of global fleet station, Maritime Civil Affairs and Security Training Command, and maritime expeditionary security force.**
- **Revises the discussion on maritime domain awareness.**
- **Enhances discussion on assessment.**
- **Enhances consistency among other doctrinal publications and Department of Defense (DOD) and other United States Government policies.**
- **Modifies, adds, and removes terms and definitions from the *DOD Dictionary of Military and Associated Terms.***

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- **Describes the Maritime Domain**
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Introduction

Maritime operations include any actions performed by maritime forces to gain or exploit command of the sea, sea control, and/or sea denial, or to project power from the sea.

Sea control may include naval cooperation and guidance for shipping, protection of sea lines of communications, air lines of communications, blockades, embargoes against economic or military shipping, and maritime interception operations (MIO). Maritime operations also encompass operations to locate, classify, track, and target surface vessels, submarines, and aircraft. In addition, amphibious operations increase the commander's options for maneuver in the littorals and forcible entry operations.

General Approach to Command and Control

The joint force maritime component commander (JFMCC) must have the capability to exercise command and control (C2) of maritime forces and to accomplish a broad range of missions in denied or degraded environments. Subordinate commanders execute operations independently with a thorough understanding of the commander's intent. Joint maritime operations tend to be decentralized, and unity of effort is made possible via mission command.

Mission Command

Mission command is the conduct of military operations through decentralized execution based upon mission-type orders. Commanders issue mission-type orders focused on the purpose of the operation rather than on the details of how to perform assigned tasks.

Seapower Essential Functions

The US Navy employs five functions in a combined-arms approach to provide a unique comparative advantage for the joint force.

- Operational access is the ability to project military force in contested areas with sufficient freedom of action to accomplish the mission.
- Deterrence influences potential adversaries not to take threatening actions.
- Sea control is the essence of seapower and is a necessary ingredient in the successful accomplishment of all naval missions.
- Power projection supports deterrence objectives and activities.
- Maritime security operations (MSO) are conducted to establish the conditions for security and protection of sovereignty in the maritime domain.

Joint Maritime Operations

Joint maritime operations are performed with maritime forces, and other forces assigned, attached, or made available, in support of the joint force commander's (JFC's) operation or campaign objectives or in support of other components of the joint force. The JFC may designate a JFMCC to C2 a joint maritime operation. The JFMCC has authority over assigned and attached forces and forces made available for tasking. The degree of integration and coordination between joint force component commanders varies depending on the situation.

Maritime Domain

The maritime domain is the oceans, seas, bays, estuaries, islands, coastal areas, and the airspace above these, including the littorals. Nothing in the definition of, or the use of the term domain, implies or mandates exclusivity, primacy, or C2 of that domain. The littoral comprises two segments of the operational environment (OE). First, "seaward: the area from the open ocean to the shore, which must be controlled to support operations ashore." Second, "landward: the area inland from the shore that can be supported and defended directly from the sea."

Diplomatic and Political Maritime Issues

Diplomatic and political maritime issues increase as nations attempt to extend their claims over offshore resources. These claims lead to disputes over the exact extent of maritime borders and exclusive economic zones (EEZs). Artificial islands, installations, and structures do

not possess the status of islands. Artificial islands are treated differently from natural islands under international law; they do not create or extend territorial sea, EEZs, or continental shelf claims. It is uncertain what constraints and restrictions joint forces may face when operating in other nations' territorial seas, contiguous zones, EEZs, and continental shelves claimed by coastal states.

Organizing for Joint Maritime Operations

General Organizational Options

The JFC establishes subordinate commands, assigns responsibilities, establishes appropriate command relationships, provides coordinating instructions to optimize the capabilities of each subordinate, and gains synergistic effects for the joint force as a whole. The JFC may designate a JFMCC to facilitate unity of effort, focus, and synchronize efforts while providing subordinate commanders flexibility and opportunity to exercise initiative and maintain the joint forces' operational tempo. Normally, joint forces are organized with a combination of Service and functional component commands with operational responsibilities. The JFC may elect to directly task maritime forces.

Naval Command Relationships

Naval command relationships are based on a philosophy of mission command involving centralized guidance, collaborative planning, and decentralized control and execution. With a long-standing practice of using mission-type orders, naval C2 practices are intended to achieve relative advantage through organizational ability to rapidly observe, orient, decide, and act.

Forward-Deployed, Flexible, Sea-Based Force

The amphibious ready group (ARG)/Marine expeditionary unit (MEU) is a forward-deployed, flexible, sea-based force that provides the President and the combatant commander (CCDR) with credible deterrence and decision time across the competition continuum. The ARG and MEU affords the CCDR a responsive, flexible, and versatile capability to shape the OE, respond to crises, and protect US and allied interests in permissive and select uncertain and hostile environments.

Command Relationships and Responsibilities

The JFC establishes the authority and command relationships of the JFMCC. The JFMCC exercises operational control over their own Service forces and tactical control over other Service forces made available for tasking. Regardless of organizational and command

arrangements within joint commands, Service component commanders are responsible for certain Service-specific functions and other matters affecting their forces.

Maritime Area of Operation

JFCs establish maritime areas of operation (AOs) to decentralize execution of maritime component operations, allow rapid maneuver, and provide the ability to fight at extended ranges. The size, shape, and positioning of land or maritime AOs will be based on the JFC's concept of operations (CONOPS) and the land or maritime commander's requirements to accomplish missions and protect forces. The AO can be dynamic and evolve as the operation or campaign matures. When the JFC designates a maritime AO, the JFMCC is the supported commander within the AO.

Organizing and Manning the Component Headquarters

The JFMCC's staff is typically built from an existing Service component, numbered fleet, Marine air-ground task force, or subordinate Service force staff and then augmented as required. A joint air component coordination element is often included to coordinate joint force air component commander missions. In a maritime headquarters, two complementary methods of organizing people and processes exist. The first is the doctrinal N-code structure, which organizes people by the function they perform (i.e., intelligence, logistics). The second is a cross-functional staff that organizes the staff into boards, centers, cells, and working groups that manage specific processes or tasks that do not fit well under the N-code structure.

Navy Composite Warfare Doctrine

US Navy composite warfare doctrine allows the officer in tactical command (OTC) to assign some or all of the command functions associated with mission areas to warfare commanders, functional group commanders, and coordinators. The warfare commanders that may be established include the air and missile defense commander, the antisubmarine warfare commander, the information operations warfare commander, the strike warfare commander, and the surface warfare commander. The functional group commanders that may be established include the ballistic missile defense commander, the MIO commander, the mine warfare (MIW) commander, the screen commander, and the underway replenishment group commander.

Command by Negation

The OTC controls composite warfare commander (CWC) and subordinate warfare commander's actions through command by negation. Command by negation acknowledges that, because of the often distributed and dispersed nature of maritime warfare, it is necessary to pre-plan the actions of a force to an assessed threat and delegate some warfare functions to subordinate commanders. Once such functions are delegated, the subordinate commander is to take the required action without delay, always keeping the OTC informed of the situation.

Planning Joint Maritime Operations

Maritime Planning Processes and Products

The JFMCC's planning is driven by the JFC's guidance and intent, supports JFC staff planning efforts, and should be closely coordinated with component planning. Most maritime platforms are multi-mission capable and are routinely multi-tasked to support different missions and warfare commanders. JFMCC, OTC, and CWCs and their staffs should be able to recognize and prioritize requirements, address conflicts and limitations, and integrate the various capabilities of assigned and attached forces and those made available for tasking.

Organizing the Operational Area

Commanders and their staffs should assess friendly factors of space, time, forces, and degree of risk tolerance individually and then balance them in combination against the ultimate or intermediate objective. In harmonizing friendly operational factors against the respective objective, all considerations, when possible, should start with the quantifiable factors of space and time (i.e., operational reach). The factor of time is more dynamic and changeable than the factor of space.

Other General Planning Considerations

Maritime Domain Awareness (MDA). Obtaining and maintaining accurate MDA is a key enabler of an active and layered maritime defense in depth and facilitates more expeditious and precise actions by the JFMCC and subordinate commanders.

Sustainment. The sea remains the principal transport medium for large, heavy, and bulky items, as well as large volume requirements.

Environmental considerations. Failing to comply with applicable environmental requirements (which may

include analysis of environmental impacts on a host nation) could produce an erosion of support or acceptance of the operation at home and abroad.

Weather. Seasonal fluctuations in weather may have strategic significance. Flight operations, amphibious operations, and sonar performance may be made more difficult by high sea states and extreme high or low temperatures. Adverse conditions may also be used to advantage.

Law of the Sea

Although the US is not a party to the 1982 United Nations Convention on the Law of the Sea (UNCLOS), it considers the navigation and overflight provisions therein reflective of customary international law and thus acts in accordance with UNCLOS, except for the deep seabed mining provisions.

Assessment

Assessment is a process that evaluates changes in the OE and measures progress of the joint force toward mission accomplishment. Commanders continuously assess the OE and the progress of operations; compare them to their initial visualization, understanding, and intent; and adjust operations based on this analysis.

Multinational Participation

In a multinational environment, the operational aim for maritime forces is to exercise sea control; project power ashore; synchronize maritime operations with operations throughout the maritime operational area; and support the multinational force commander's CONOPS, intent, and guidance in accomplishing the multinational task force mission.

Command and Control and Other Operational-Level Considerations for Specific Maritime Operations

The Fleet

The US Navy's traditional and doctrinal warfighting configuration is the fleet, commanded by a numbered fleet commander. Typically, the fleet commander task-organizes assigned and attached forces using the Navy's administrative organization as its foundation. The JFMCC may create subordinate task forces, who may in turn create further subordinate organizations. In each case, the establishing authority must designate the command authorities for each subordinate organization, to include support relationships as required.

Surface Warfare

Surface warfare encompasses operations conducted to destroy or neutralize enemy naval surface forces and merchant vessels. These operations typically include the planning and directing of surveillance of the maritime domain, interdiction, and strikes by aircraft and missiles.

Air and Missile Defense

Countering air and missile threats consists of a combination of theater counterair and integrated air and missile defense (IAMD). Counterair is the foundational framework at the theater level. IAMD synchronizes aspects of counterair with global missile defense, homeland defense, and global strike.

Antisubmarine Warfare

Undersea warfare (USW) operations are conducted to establish dominance in the undersea portion of the maritime operational area, which permits friendly forces to operate throughout the maritime operational area and denies an opposing force the effective use of underwater systems and weapons. USW includes offensive and defensive submarine, antisubmarine warfare, and MIW operations.

Mine Warfare

Maritime MIW is divided into two basic subdivisions: the laying of mines to degrade the enemy's capabilities to wage warfare and the countering of enemy-laid mines to permit friendly maneuver.

Strike Warfare

Strike warfare operations are naval operations to destroy or neutralize targets ashore, including attacks against strategic or tactical targets, such as manufacturing facilities and operating bases, from which the enemy is capable of conducting or supporting air, surface, or subsurface operations against friendly forces.

Amphibious Operations

Amphibious operations are complex and may involve all components of the joint force. They are typified by close integration of forces trained, organized, and equipped for different combat functions. The JFC and JFMCC should shape the amphibious objective area or operational area by employing carrier strike groups and other maritime and joint assets prior to the commencement of the amphibious operation.

Naval Surface Fire Support

Naval surface fire support (NSFS) units provide direct or general support to other joint force components or subordinate forces of the JFMCC. When supporting a landing force or other ground forces, an NSFS spotting

team is usually attached to the maneuvering forces for fire support coordination purposes.

Other Maritime Operations

Other maritime operations include:

- Maritime intercept operations.
- MSO.
- Maritime homeland defense and defense support of civil authorities.
- Global maritime partnerships and security cooperation.
- Sea-based operations.
- Counterdrug operations.
- Noncombatant evacuation operations.
- Protection of shipping.
- Maritime pre-positioning force operations.
- Foreign humanitarian assistance.
- Maritime operational threat response.
- Riverine operations.

Conclusion

This publication provides doctrine for C2 of joint maritime operations.

CHAPTER I
INTRODUCTION

"Whosoever can hold the sea has command of everything."

Themistocles (524-460 BC)
Athenian Politician and General

1. General

a. This publication provides joint doctrine for the command and control (C2) of joint maritime operations. It discusses the responsibilities of a joint force maritime component commander (JFMCC) and informs any component tasked to conduct or support the joint force commander's (JFC's) objectives in the maritime operational area. Maritime operations include any actions performed by maritime forces to gain or exploit command of the sea, sea control, and/or sea denial or to project power from the sea. Sea control may include naval cooperation and guidance for shipping (NCAGS), protection of sea lines of communications (SLOCs), air lines of communications (ALOCs), blockades, embargoes against economic or military shipping, and maritime interception operations (MIO). Maritime operations also encompass operations to locate, classify, track, and target surface vessels, submarines, and aircraft. In addition, amphibious operations increase the commander's options for maneuver in the littorals and forcible entry operations.

b. The terms "naval" and "maritime" forces are used throughout this publication to encompass United States Navy (USN), United States Marine Corps (USMC), and United States Coast Guard (USCG) personnel, weapon systems, and organizations. A maritime force is any force constituted by the JFC to achieve operational objectives at sea or to achieve an objective on land from the sea.

c. Maritime forces operate on (surface), under (subsurface), or above (air) the sea and/or above and on the land in support of amphibious operations, port security, infrastructure protection, strike, and integrated air and missile defense (IAMD) operations and other types of operations across the competition continuum.

(1) Movement and maneuver of forces within international waters can take place without prior diplomatic agreement.

(2) Maritime forces are mostly a self-deploying, self-sustaining, sea-based expeditionary force and a combined-arms team. Maritime forces are manned, trained, and equipped to operate with limited reliance on ports or airfields.

d. Maritime forces can participate in multiple operations ashore. They can execute, support, or enable missions ashore by conducting forcible entry operations (such as an amphibious assault), seizing/establishing expeditionary advance bases, seabasing of assets, moving land forces into the operational area via sealift, providing fire and air support, and influencing operations through deterrence. Maritime forces may be employed in littoral waters for the conduct of sea control or denial, ballistic missile defense (BMD), and to

support joint force or component C2 platforms. Joint forces can support maritime operations with surveillance, logistics, fires, air support, and military engineering.

e. While the nature of war has not changed, the character of warfare has evolved in a way that will significantly affect how the joint force conducts C2 of joint maritime operations. The strategic environment is uncertain, complex, and changes rapidly. It is fluid, with changing alliances, partnerships, and national and transnational threats that rapidly emerge, disaggregate, and reemerge. The operational environment (OE) and the threats it presents are increasingly transregional, multi-domain, and multifunctional in nature. JFCs can expect uncertainty and ambiguity to exist in strategic environments and OEs.

2. General Approach to Command and Control

a. C2 is the means by which a commander synchronizes and/or integrates joint force activities. C2 ties together all the operational functions and tasks and applies to all levels of warfare and echelons of command. C2 functions are performed through an arrangement of personnel, equipment, communications, facilities, and procedures employed by a commander to plan, direct, coordinate, and control forces and operations in the accomplishment of the mission. Successful C2 is reinforced by fundamentals, principles, and adherence to established tenets.

b. The JFMCC must have the capability to exercise C2 of maritime forces and to accomplish a broad range of missions in denied or degraded environments. C2, in a denied or degraded environment, is the exercise of authority and direction by a commander over assigned and attached forces, in the accomplishment of a mission, while access to and use of critical information, systems, and services are reduced or prevented. Threats to the JFMCC's C2 systems include natural phenomena, as well as state or non-state actors employing all means to attack.

c. C2 of maritime forces is shaped by the characteristics and complexity of the maritime domain and the traditions and independent culture of maritime forces. Subordinate commanders execute operations independently with a thorough understanding of the commander's intent. Once assigned missions and functions, the subordinate commander takes required actions without delay, keeping the superior commander informed of the situation. The superior commander retains the authority to deny any particular action or exercise command by negation. As such, joint maritime operations tend to be decentralized, and unity of effort is made possible via mission command.

d. Mission command is the conduct of military operations through decentralized execution based upon mission-type orders. Success requires subordinate leaders at all echelons to exercise disciplined initiative and act aggressively and independently to accomplish the mission. Essential to mission command is the thorough understanding of the commander's intent at every level of command. Commanders issue mission-type orders focused on the purpose of the operation rather than on the details of how to perform assigned tasks. They delegate decision-making authority to subordinates wherever possible, to minimize detailed control and empower subordinates to take initiative and

make decisions based on understanding of the commander's intent rather than on constant communications. When joint maritime operations are decentralized and reliant on mission command, coordination and planning considerations should include the procedures, measures, and resources (including time) required to implement those plans. The JFMCC and staff should anticipate requirements for joint support, prioritization of operations or force elements, and extensive coordination with other affected Service and functional component commanders, including multinational partners.

e. Command by negation and mission command also play a crucial role when the electromagnetic spectrum becomes contested. Commanders should consider the potential for significantly reduced communications network connectivity up and down the chain of command, planning in advance to facilitate successful continuity of operations, transmission of authorities, and mission execution while operating in denied, degraded and exploited environments.

3. Seapower Essential Functions

The USN employs five functions in a combined-arms approach to provide a unique comparative advantage for the joint force.

a. **Operational Access.** Operational access is the ability to project military force in contested areas with sufficient freedom of action to accomplish the mission. In today's security environment, operational access is increasingly contested by state and non-state actors that can hold even our most advanced forces and weapon systems at risk with their own innovative strategies and weapons systems.

b. **Deterrence.** Defending national interests requires being able to prevail in conflict and taking preventive measures to deter potential adversaries who could threaten the vital interests of the United States or its partners. These threats could range from direct aggression to belligerent actions that nonetheless threaten vital national interests. Deterrence influences potential adversaries not to take threatening actions. It is a state of mind brought about by the existence of a credible threat of unacceptable counteraction. Deterrence requires convincing those adversaries that a contemplated action will not achieve the desired result by fear of the consequences.

c. **Sea Control Operations.** Sea control operations are those operations designed to secure use of the maritime domain by one's own forces and to prevent its use by the enemy. Sea control is the essence of seapower and is a necessary ingredient in the successful accomplishment of all naval missions. Sea control and power projection complement one another. Sea control allows naval forces to close within striking distance to remove landward threats that threaten access, which in turn enhances freedom of action at sea. Freedom of action at sea enables the projection of forces ashore. Sea control operations are the employment of naval forces, supported by land, air, space, cyberspace, or special operations forces, to achieve military objectives in vital sea areas. Establishing sea control may require projecting power ashore to neutralize threats or control terrain in the landward portion of the littorals. Sea control operations include the destruction of enemy naval forces, suppression of enemy sea commerce, protection of vital sea lanes, and

establishment of local air and maritime superiority in areas of naval operations. The vastness of the world's oceans makes it impossible for even a preeminent naval power to achieve global maritime superiority. Thus, achieving local or regional maritime superiority or maritime supremacy may be desired by the JFC for a limited duration to accomplish specific objectives. Sea control requires maritime, air, space, and cyberspace capabilities.

d. **Power Projection.** The United States possesses the ability to project significant power from the sea. Power projection in and from the maritime area of operations (AO) in which we have local sea control includes a broad spectrum of offensive military operations to destroy, suppress, or neutralize enemy forces and their logistic support, or prevent enemy forces from approaching within enemy weapons range of friendly forces to achieve objectives at sea or from the sea. Credible power projection supports deterrence objectives and activities.

e. **Maritime Security.** The safety and economic security of the United States depends in substantial part upon the secure use of the world's oceans. Maritime security operations (MSO) are conducted to establish the conditions for security and protection of sovereignty in the maritime domain. Additionally, MSO protect maritime resources and counter maritime-related terrorism, weapons proliferation, transnational crime, piracy, environmental destruction, and illegal seaborne migration. Terrorists, pirates, and transnational criminals use legitimate maritime traffic to mask their illicit activities, threatening safety and security. Identifying, tracking, and neutralizing these threats and illicit activities is essential to protecting national security and the global economy. Additional tasks are to assist mariners in distress, participate in security cooperation operations with allies and partners, share situational awareness, and conduct maritime interception and law enforcement operations (LEO). MSO involves close coordination among governments, the private sector, international organizations, and nongovernmental organizations (NGOs).

For more information on MSO, see Joint Publication (JP) 3-07.4, Counterdrug Operations, *and Navy Tactical Reference Publication (NTRP) 3-20-3.1,* Multi-Threat Surface Ship Defense.

4. Joint Maritime Operations

a. Joint maritime operations are performed with maritime forces, and other forces assigned, attached, or made available, in support of the JFC's operation or campaign objectives or in support of other components of the joint force. The JFC may designate a JFMCC to C2 a joint maritime operation. As a functional component commander, the JFMCC has authority over assigned and attached forces and forces made available for tasking.

b. The degree of integration and coordination between joint force component commanders varies depending on the situation. For some joint maritime operations, the JFMCC may operate without the support of other Service component forces (e.g., open ocean submarine operations); whereas for others, there may be detailed integration between components (e.g., attack of enemy submarines in port or their supporting critical

infrastructures ashore). In other cases, tactical control (TACON) of maritime forces may be delegated to other joint force components (e.g., close air support [CAS] and strategic attack). For sea control operations, TACON of another joint force component's forces may be delegated to the JFMCC (e.g., air operations in maritime surface warfare [SUW]). In certain situations, specification of operational control (OPCON) or TACON of forces may not be practical. In these cases, the JFC should establish a support relationship, as required. All major operations generally necessitate some degree of maritime support to deploy, sustain, withdraw, and redeploy forces.

5. Maritime Domain

a. The maritime domain is the oceans, seas, bays, estuaries, islands, coastal areas, and the airspace above these, including the littorals. Nothing in the definition of, or the use of the term domain, implies or mandates exclusivity, primacy, or C2 of that domain. Per JP 2-01.3, *Joint Intelligence Preparation of the Operational Environment,* the littoral comprises two segments of the OE. First, "seaward: the area from the open ocean to the shore, which must be controlled to support operations ashore." Second, "landward: the area inland from the shore that can be supported and defended directly from the sea."

b. The maritime domain also has unique economic, diplomatic, military, and legal aspects (see Figure I-1). US naval forces operate in the deep waters of the open ocean and other maritime environments, including coastal areas, rivers, estuaries, and landward portions of the littorals, including associated airspace. In many regions of the world, rivers mark and define international borders and facilitate intracontinental trade. Ensuring access and securing these waterways are often priorities of state governments seeking to maintain stability and sovereignty. There are several thousand straits connecting the world's oceans, but only about 200 are the most vulnerable seaway chokepoints and lines of communications. Adversaries may attempt to control the use of an internationally recognized strait by restricting access or disrupting passage of friendly naval forces or merchant shipping. In the event of regional conflict, small coastal navies operating in close proximity to these straits can present a serious challenge to the operations of naval forces and merchant shipping. Diplomatic and political maritime issues increase as nations attempt to extend their claims over offshore resources. These claims lead to disputes over the exact extent of maritime borders and exclusive economic zones (EEZs). Artificial islands, installations, and structures do not possess the status of islands. They have no territorial sea of their own, and their presence does not affect the delimitation of the territorial sea, the EEZ, or the continental shelf. Artificial islands are treated differently from natural islands under international law; they do not create or extend territorial sea, EEZs, or continental shelf claims. It is uncertain what constraints and restrictions joint forces may face when operating in other nations' territorial seas, contiguous zones, EEZs, and continental shelves claimed by coastal states.

For more information on artificial islands, see United Nations Convention on the Law of the Sea (UNCLOS).

c. Navies of the world may be categorized within a broad spectrum of demonstrated capabilities and political mandates. Naval capability, as demonstrated by projection of

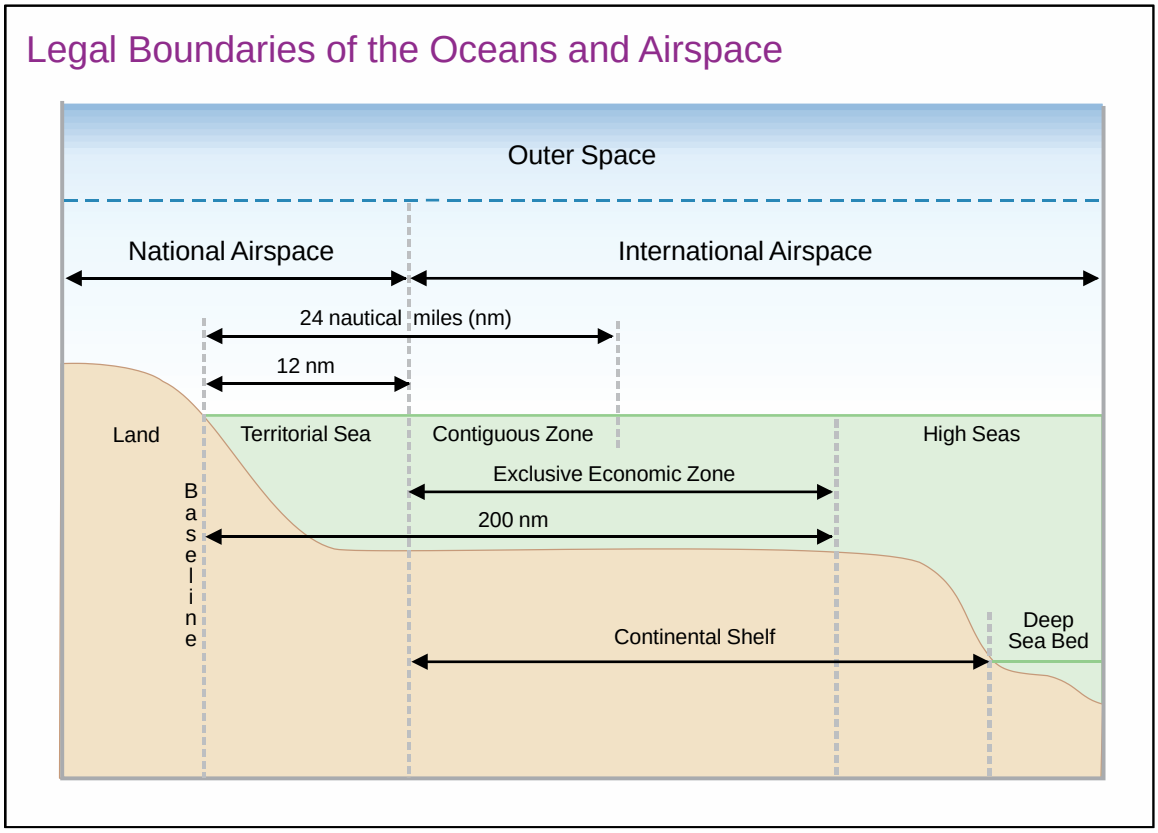

Figure I-1. Legal Boundaries of the Oceans and Airspace

power, may be viewed as global, regional, territorial, coastal, and self- defense forces. The great majority of the world's navies are small and capable of operating only in their respective littoral waters or as constabulary navies. Only a few navies are capable of sustained employment far from their countries' shores. However, whether or not their navies are capable of global power projection, most maritime nations also maintain air forces capable of conducting operations over the adjacent maritime domain. This air capability should be considered while planning operations in the maritime domain. Likewise, the multi-mission capabilities of modern naval platforms and their ability to project power should be a planning consideration. Ships and aircraft, regardless of source (e.g., enemy, adversary, neutral, friendly), are constantly in motion, thereby presenting additional challenges for the operational commander to gain and maintain situational awareness.

d. The physical properties of the land-sea and air-sea interfaces, some unique undersea properties, and the sheer vastness of the maritime domain render the sea largely opaque to many sensors. It provides a hiding place for smuggling operations, submarines firing missiles, and conducting naval movement and maneuver. While surface ships can be detected by a wide range of sensors, including satellite or air surveillance, it is often difficult to identify specific vessels as targets with sufficient certainty to engage them, especially if they are not radiating distinctive electromagnetic and acoustic signatures. Additionally, weather conditions can change rapidly, and selected characteristics such as

wave height and sea spray may impact visibility and radar and sensor effectiveness of platforms and munitions.

e. Joint maritime operations occur in blue water, green water, brown water environments, and in the landward areas in the littorals, each with its own challenges. Operations in blue water (high seas and open oceans) require forces capable of remaining on station for extended periods, largely unrestricted by sea state, and with logistics capability to sustain these forces indefinitely. Operations in green water (coastal waters, ports, and harbors) stretching seaward require ships, amphibious warfare ships and landing craft, and patrol craft with the stability and agility to operate effectively in surf, in shallows, and the near-shore areas of the littorals. Operations in brown water (navigable rivers, lakes, bays, and their estuaries) involve shallows and congested areas that constrain maneuver but do not subject maritime forces to extreme surf conditions. Operations on land in the littorals may involve landing forces going ashore by embarked aircraft, landing craft, and amphibious vehicles from amphibious warfare ships.

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CHAPTER II
ORGANIZING FOR JOINT MARITIME OPERATIONS

The Sea Services have historically organized, trained, and equipped to perform four essential functions: deterrence, sea control, power projection, and maritime security. Because access to the global commons is critical, this strategy introduces a fifth function: all domain access. This function assures appropriate freedom of action in any domain—the sea, air, land, space, and cyberspace, as well as in the electromagnetic (EM) spectrum.

A Cooperative Strategy for 21st Century Seapower
March 2015

1. General Organizational Options

a. JFCs at the combatant command (CCMD), subordinate unified command, and/or joint task force (TF) command levels all organize staffs and forces to accomplish the mission based on their vision and concept of operations (CONOPS). Organizing the maritime force should take into account the nature of today's complex OE; technological advances in communications; intelligence collection systems; improved weapons capabilities; and how multinational forces organize, train, equip, and conduct operations. Equally important in determining how a JFC organizes joint forces are the threat's nature, capabilities, and the OE (e.g., geography, accessibility, climate, and infrastructure).

b. The JFC establishes subordinate commands, assigns responsibilities, establishes appropriate command relationships, provides coordinating instructions to optimize the capabilities of each subordinate, and gains synergistic effects for the joint force as a whole. The JFC may designate a JFMCC to facilitate unity of effort, focus, and synchronize efforts while providing subordinate commanders flexibility and opportunity to exercise initiative and maintain the joint forces' operational tempo.

(1) Normally, joint forces are organized with a combination of Service and functional component commands with operational responsibilities (see Figure II-1). The JFC normally designates the forces and maritime assets that will be made available for tasking by the JFMCC and delegates the appropriate command authority the JFMCC will exercise over assigned and attached forces and maritime assets made available for tasking. Generally, these forces and maritime assets include navies, marines, special operations forces (SOF), coast guards and similar border patrol and revenue services, nonmilitary shipping managed by the government, civil merchant marines, army/ground forces (normally when embarked), and air and air defense (AD) forces. Establishment of a JFMCC must not affect the command relationships between Service component commanders and the JFC.

(2) In cases where the JFC does not designate a JFMCC, the JFC may elect to directly task maritime forces. Typically, this would occur when an operation is of limited duration, scope, or complexity. If this option is exercised, the JFC's staff assists in planning and coordinating maritime operations for JFC approval. The JFC may elect to

Typical Joint Force Maritime Component Commander Responsibilities

- Develop a joint maritime operations plan to best support joint force objectives.
- Provide centralized direction for the allocation and tasking of forces/capabilities made available.
- Request forces of other component commanders when necessary for the accomplishment of the maritime mission.
- Make maritime apportionment recommendations to the joint force commander (JFC).
- Provide maritime forces to other component commanders in accordance with JFC maritime apportionment decisions.
- Control the operational level synchronization and execution of joint maritime operations, as specified by the JFC, to include adjusting targets and tasks for available joint capabilities/forces. The JFC and affected component commanders will be notified, as appropriate, if the joint force maritime component commander (JFMCC) changes the planned joint maritime operations during execution.
- Act as supported commander within the assigned area of operations (AO).
- Assign and coordinate target priorities within the assigned AO by synchronizing and integrating maneuver, mobility and movement, fires, and interdiction. The JFMCC nominates targets located within the maritime AO to the joint targeting process that may potentially require action by another component commander's assigned forces.
- Evaluate results of maritime operations and forward assessments to the JFC in support of the overall effort.
- Support JFC information operations with assigned assets, when directed.
- Function as a supported and supporting commander, as directed by the JFC.
- Perform other functions, as directed by the JFC.
- Establish a personnel recovery coordination cell to account for and report the status of isolated personnel and to coordinate and control maritime component personnel recovery events; and, if directed by the JFC, establish a separate joint personnel recovery center for the same purpose in support of a joint recovery event.
- Coordinate the planning and execution of joint maritime operations with the other components and supporting agencies.
- Integrate the JFMCC's communications systems and resources into the theater's networked communications system architecture, or common operational picture, and synchronize JFMCC's critical voice and data requirements. Ensure these communications systems requirements, coordination issues, and capabilities are integrated in the joint planning and execution process.

Figure II-1. Typical Joint Force Maritime Component Commander Responsibilities

centralize selected functions (plan, coordinate, and task) within the staff to provide direction, control, and coordination of the joint force.

c. Naval command relationships are based on a philosophy of mission command involving centralized guidance, collaborative planning, and decentralized control and execution. With a long-standing practice of using mission-type orders, naval C2 practices

are intended to achieve relative advantage through organizational ability to rapidly observe, orient, decide, and act. Mission-type orders enable continued operations allowing subordinates to exercise initiative consistent with the higher commander's intent and act independently to accomplish the mission in conditions where communications are restricted, compromised, or denied.

d. Since the JFC normally designates a Service component commander to also serve as a functional component commander, the dual-designated Service/functional component commander will normally exercise OPCON as a Service component commander over their own Service forces and TACON as a functional component commander over other Services forces made available for tasking. USN multi-mission ships are rarely made available for tasking outside the maritime component, because their multi-mission capabilities will require them to fulfill JFMCC operational requirements. However, some capabilities of multi-mission ships and other maritime forces may be made available to other components in direct support.

e. Forward-deployed maritime force packages, commonly called adaptive force packages, are normally composed of units that train together prior to deploying. These tailored force packages may include carrier strike groups (CSGs), expeditionary strike groups, and amphibious ready groups (ARGs) with an embarked Marine expeditionary unit (MEU). Force packages can be scaled up by adding ships and capabilities or scaled down into smaller surface action groups (SAGs), individual ships, or special purpose forces designed to conduct numerous types of military operations.

f. The ARG/MEU is a forward-deployed, flexible, sea-based force that provides the President and the combatant commander (CCDR) with an assigned area of responsibility (AOR) with credible deterrence and decision time across the competition continuum. The ARG and MEU affords the CCDR a responsive, flexible, and versatile capability to shape the OE, respond to crises, and protect US and allied interests in permissive and select uncertain and hostile environments. ARG and MEU capabilities support initial crisis response, introduce follow-on forces, support designated SOF, and other missions in permissive and select uncertain and hostile environments, which include, but are not limited to: amphibious assaults, amphibious raids, amphibious demonstrations, amphibious withdrawals, and amphibious force support to crisis response and other operations (e.g., noncombatant evacuation operations, humanitarian assistance, or MSO). The ARG and Navy detachments are organized under the command of a Navy O-6, while the MEU, with its embarked Marine air-ground task force (MAGTF), is under the command of a Marine Corps O-6. Figure II-2 outlines the different organizational constructs applicable to ARG/MEU employment.

For additional information see JP 3-02, Amphibious Operations.

2. Component Employment Considerations

a. **Weighing Options.** When the JFC designates a JFMCC, the JFMCC's authority and responsibility are also defined by the JFC. The following are some considerations for establishing JFMCC authorities, responsibilities, and timing:

Operational Employment for Amphibious Ready Groups with Embarked Marine Expeditionary Units

Aggregated

- The most common form where the amphibious ready group (ARG) with embarked Marine expeditionary unit (MEU) is employed under a single geographic combatant commander (GCC) who maintains operational control (OPCON) or tactical control (TACON) of the ARG/MEU. "Split" is a subset of aggregated, where the ARG and MEU remains employed within a single GCC's area of responsibility (AOR), but the units are separated by time, distance, or task while operating beyond the reach of tilt-rotor aircraft or landing craft. Aggregated is the preferred employment construct.

Disaggregated

- This construct is driven by emergent requirements wherein the ARG and MEU is divided into parts to support multiple GCCs. The ARG and MEU elements operate within the distinct OPCON/TACON chains of the respective GCCs. Disaggregation comes with a corresponding degradation of ARG and MEU operational readiness, training, and maintenance. This is the least preferred employment construct.

Distributed

- The ARG and MEU is partitioned for emergent requirements for multiple GCCs. However, the original GCC to whom it was allocated retains OPCON while another exercises TACON of elements that are distributed for a specific mission or duration mission. The ARG and MEU is able to sustain its elements, facilitate planning, and conduct military engagement and joint/combined training across AOR boundaries, and is supported throughout operations. ARG and MEU communication and computers systems are critical for supporting distributed operations. The GCC that has OPCON may request re-aggregation at any time, and the ARG and MEU commanders cannot make changes to capabilities allocated OPCON or TACON without approval. Distributed is the preferred employment construct to support multiple GCCs.

Figure II-2. Operational Employment for Amphibious Ready Groups with Embarked Marine Expeditionary Units

(1) **Planning.** There is a need for detailed, coordinated, concurrent, and parallel planning. While JFMCC integrated planning is focused primarily on employment, the JFMCC may also be tasked to integrate planning of multi-Service and multinational maritime forces for deployment, transition, redeployment, or reconstitution at a level subordinate to that of the JFC.

(2) **Duration.** The projected length of an operation should be of sufficient duration to warrant the establishment of a JFMCC. The decision to establish a JFMCC should also consider the time required for additional personnel and staff sourcing and training, the establishment of C2 alterations, and necessary communications system support architecture upgrades.

(3) **Maritime Perspective.** The JFC desires the focused maritime expertise of a JFMCC to enhance the detailed planning, coordination, and execution of joint maritime operations.

(4) **JFC Span of Control.** When task complexities, JFC staff organizational or resource limitations, and environmental intricacies limit the JFC's effective span of control, empowering functional components can provide the flexibility and initiative required for success.

(5) **Timing.** To permit the JFMCC to fully participate in planning and to maximize unity of effort, the decision to establish and designate a JFMCC should occur well before the concept development phase of the operation or campaign plan. JFMCC representatives should be identified and involved in planning as early as possible.

(6) **Geographic Constraints.** The geography of the operational area may dictate that only a maritime force can conduct extended operations in a specific location. Operations far from a friendly base or advanced base may limit the ability of another Service or component commander to conduct timely operations.

b. **Service Component Command**

(1) All joint forces include Service component commands to address administrative and logistic support for Service forces. The JFC may choose to conduct operations through a Service component commander or, at lower echelons, a Service force commander. This most often happens when there are no other Service or multinational maritime capabilities provided as part of the joint force and the scope of operations, along with the need for stability, continuity, economy, and ease of long-range planning, dictate organizational integrity of Service forces for conducting operations.

(2) A Navy component command assigned to a CCDR consists of the Navy component commander (NCC) and the Navy forces (NAVFOR) that have been assigned to that CCDR. A Marine Corps component command assigned or attached to a CCDR consists of the Marine Corps component commander and the Marine Corps forces that have been assigned or attached to that CCDR. When a Service command is designated as the naval or maritime component to multiple CCDRs, the commander and only those specific forces assigned to that particular CCDR are under the combatant command (command authority) of that particular CCDR.

(3) In instances where an NCC is not assigned, NAVFOR may be attached as a Navy Service component through the request for forces process. When attached, this Navy Service component includes NAVFOR, a designated commander, and appropriate command element.

c. **Selecting a Commander.** The JFC establishing a functional component command has the authority to designate its commander. Normally, the Service component commander with the preponderance of forces to be tasked and the ability to C2 those forces will be designated as the functional component commander; however, the JFC will always consider the mission, nature and duration of the operation, force capabilities, and the C2 capabilities in selecting a commander. A USMC or USCG officer could be designated the JFMCC.

3. Command Relationships and Responsibilities

a. Command Relationships Applicable to the JFMCC

(1) JFMCC responsibilities are to plan, coordinate, allocate, and task joint maritime operations based on the JFC's CONOPS and apportionment decisions. Specific responsibilities that are normally assigned to the JFMCC are included in Figure II-1.

(2) The JFC establishes the authority and command relationships of the JFMCC. The JFMCC normally exercises OPCON over their own Service forces and TACON over other Service forces made available for tasking. Regardless of organizational and command arrangements within joint commands, Service component commanders are responsible for certain Service-specific functions and other matters affecting their forces: internal administration, training, logistics, and Service-unique intelligence operations. The JFMCC should be aware of all such Service-specific responsibilities.

b. Maritime AO

(1) When a JFMCC is established, the JFC will normally designate a maritime AO. JFCs establish maritime AOs to decentralize execution of maritime component operations, allow rapid maneuver, and provide the ability to fight at extended ranges. The size, shape, and positioning of land or maritime AOs will be based on the JFC's CONOPS and the land or maritime commander's requirements to accomplish missions and protect forces. The AO can be dynamic and evolve as the operation or campaign matures. It should be of sufficient size and geography to allow for movement, maneuver, and employment of weapons systems and effective utilization of warfighting capabilities, as well as provide operational depth for logistics, surveillance of the threat axis and the enemy's avenue of approach, and force protection (FP). Within the AO, the JFMCC establishes subordinate maneuver space that allows for independent yet supporting operations of subordinate elements while enabling the synchronized and effective employment of forces across all components. The AO may not encompass the entire littoral area; however, it should be large enough for the JFMCC to accomplish the mission and protect the maritime force. The AO may include air, land, and sea.

(2) When the JFC designates a maritime AO, the JFMCC is the supported commander within the AO. As supported commander, the JFMCC integrates and synchronizes maneuver, fires, and interdiction. Although the joint force air component commander (JFACC) is normally the supported commander for the JFC's overall air interdiction effort, the joint force land component commander (JFLCC) and JFMCC are supported commanders for interdiction in their respective AOs. To facilitate integration and synchronization, the JFMCC has the authority to designate target priority, effects, and timing of fires within the maritime AO.

(3) To facilitate synchronization throughout the theater or joint operations area (JOA), the JFC should establish priorities that will guide or inform execution decisions throughout the theater or JOA. In coordination with the JFMCC, other commanders designated by the JFC to execute theater- or JOA-wide functions have the latitude to plan

and execute these JFC-prioritized operations within the maritime AO. Commanders executing such a mission must coordinate the operation to avoid adverse effects. If those operations would have adverse impact within the maritime AO, the commander assigned to execute the JOA-wide functions must readjust the plan, resolve the issue with the JFMCC, or consult with the JFC for resolution.

c. **Operational Functions Considerations for the JFMCC.** The JFMCC executes the operational functions discussed below and can functionally organize to accomplish missions.

(1) **C2.** The JFMCC commands assigned and attached forces, prepares supporting plans to JFC operation plans (OPLANs) and operation orders (OPORDs), and executes operations as directed by the JFC. Upon JFC approval of the JFMCC's CONOPS or scheme of maneuver, the JFMCC exercises specified authority and direction over forces in the accomplishment of the assigned mission. The JFMCC assigns tasks and operating areas, prioritizes and allocates resources, manages risk, and publishes operational and daily tasking orders for the execution of maritime operational activity. The JFMCC also maintains liaison with other components and the joint force headquarters (HQ) to provide JFMCC representation to provide timely coordination and achieve unity of effort.

For more information on the C2 function, see JP 3-0, Joint Operations.

(a) **Planning.** The JFMCC assists the JFC to plan and prepare OPLANs and associated estimates of the situation. JFMCCs planning responsibilities are to:

1. Develop a maritime supporting plan to best support joint force CONOPS and objectives, as assigned.

2. Develop maritime courses of action (COAs) within the framework of the JFC-assigned objective or mission, the forces available, and the commander's intent.

3. Coordinate planning with higher, lower, adjacent, supporting, and multinational HQs.

4. Determine forces required and coordinate deployment planning in support of selected COAs.

5. Coordinate the planning and execution of maneuver operations with other missions.

(b) The JFMCC makes recommendations to the JFC on the employment, support, coordination, and assessment of maritime forces. Such recommendations should include:

1. Maritime force structure requirements.

2. Integration and employment of multinational maritime forces.

3. Priorities of effort.

4. Operational limitations.

5. Intelligence collection priorities.

6. Space support.

7. Cyberspace operations.

8. Assessment of joint maritime operations to include measures of effectiveness (MOEs) and measures of performance (MOPs).

(c) **Coordination and Deconfliction.** Where and when appropriate, the JFMCC makes coordination and deconfliction recommendations to the JFC, to include airspace management, land-space management, waterspace management (WSM), prevention of mutual interference (PMI), fire support coordination measures, target priorities, electromagnetic spectrum management, cyberspace operations, interorganizational coordination, and liaison requirements.

(d) Maritime C2 systems are complex and are vulnerable to denial, degradation, or exploitation. Without deliberate considerations to mitigate vulnerabilities, forces are at a higher risk of being detected, located, and targeted by adversaries leveraging multilayered sea denial capabilities. Mitigating the risk requires synchronized implementation to align commander's requirements with the C2 system. To assure effective C2, commands should plan to execute in a denied, degraded, or exploitable OE so maritime forces can reliably communicate when necessary to sufficiently synchronize the warfighting effort. Assured C2 is conducted through the systematically coordinated tasking and control of existing C2 system architectures necessary to provide commanders with sufficient control of their forces. Assured C2 seeks to facilitate clear understanding of how degradation or denial of any part of C2 systems (environment, self- or adversary-imposed) impacts the ability to execute operations to develop an effective C2 plan and align C2 systems adequately to ensure mission accomplishment.

(e) A survivable, networked joint communications system is essential to facilitate intelligence collection, coordinate multi-platform execution, provide WSM, and avoid friendly fire incidents. Information connectivity, exchange, and integration at all levels can help maximize maritime domain awareness (MDA) and mission accomplishment.

(2) **Intelligence.** Understanding the OE is fundamental to joint operations. Intelligence should be sufficiently detailed and timely to satisfy the commander's decision-making needs. JFMCC input to provide the maritime perspective of the OE is crucial. The JFMCC provides a unique complement of sensors and sensor fusion capability to support joint requirements and advocates for the use of other component and national assets to provide optimum support to maritime operations. Sonar capabilities and the ability to relocate surveillance and reconnaissance assets may provide additional options to the JFC. Close coordination with other component commanders and the intelligence directorate of

a joint staff (J-2), operations directorate of a joint staff (J-3), and communications system directorate of a joint staff (J-6) early in joint planning is essential to align architectures with platform and sensor employment plans to optimize intelligence; surveillance; reconnaissance; and associated processing, exploitation, and dissemination systems throughout the joint force. The complexity of operating in the maritime domain requires a baseline of organic intelligence collection assets in addition to any joint forces and capabilities allocated to maintain MDA and to succeed in military operations. NCCs typically retain OPCON of organic intelligence collection capabilities (manned and unmanned) to enable MDA and fully support the integrated employment of maritime capabilities.

For more information on the intelligence function, see JP 2-0, Joint Intelligence.

(3) **Movement and Maneuver.** The JFMCC is responsible for the movement and maneuver of assigned and attached forces. The JFMCC makes recommendations to the JFC regarding sealift and seabasing, the movement of supporting forces, and coordination of the movement or maneuver of other component forces through the maritime AO.

(a) The JFMCC directs subordinate commanders in the execution of force-level operational tasks, advises the JFC of its movement, and coordinates with other components and interorganizational entities supporting or affected by joint maritime operations.

(b) Operational movement and maneuver includes moving or deploying forces for operational advantage into an operational area and conducting maneuver for offensive or defensive purposes. It includes providing freedom of movement and maneuver to friendly forces and controlling the OE on land, on and under the sea, in the air, or in space where it provides an operational advantage.

(c) Often, key attributes of the JFMCC's CONOPS, movement, and maneuver in the maritime domain can help gain the element of surprise and provide a significant advantage over enemies, while allowing the commander to concentrate forces rapidly.

(d) Movement and maneuver using maritime forces are integral to joint operations. During maritime operations, commanders use information and initiative to apply decisive force and dominate specific regions and dimensions of the OE at the chosen time and place. Maintaining awareness in the transition from the open ocean to littoral areas is key to the continuing conduct of maneuver on and from the sea. Whether done at, under, or from the sea, maneuver can provide significant advantages in the application of maritime power projection in support of joint force operations. Some of the movement details and schemes of maneuver are articulated in JFC and JFMCC tasking documents, which include timing, sequencing, method, and location of entry into the assigned AO.

For more information on the movement and maneuver function, see JP 3-0, Joint Operations.

(4) **Fires.** The JFMCC plans the employment of operational fires within the maritime AO to develop and integrate multidimensional attacks on the enemy's centers of gravity (COGs) and shape the JFMCC's AO. The commander, task force (CTF), can conduct tactical fires within the maritime AO against targets on the joint target list and enemy combatant ships, submarines, aircraft, and other maritime dynamic targets. This is particularly important in sustaining the fight in accordance with the maritime commander's intentions during periods of denied or restricted communication. The JFMCC is normally tasked by the JFC with providing sea-based fires (e.g., Tomahawk land-attack missile [TLAM] or carrier-based strike sorties) in support of other components or higher HQ requirements.

For more information on the fires function, see JP 3-0, JP 3-09, Joint Fire Support; *JP 3-13,* Information Operations; *JP 3-85,* Joint Electromagnetic Spectrum Operations; *and JP 3-60,* Joint Targeting.

(5) **Protection.** The protection function focuses on preserving the maritime forces' mission capability in four primary ways: active defensive measures, passive defensive measures, the application of technology and procedures, and emergency management and response. As the mission requires, the protection function also extends to encompass protection of US civilians; the forces, systems, and civil infrastructure of friendly nations; and interorganizational partners. The JFMCC is responsible for all aspects of protection within the assigned AO. FP is part of each mission assigned to maritime forces and includes antiterrorism, physical security, and personal security. The CCDR exercises TACON for FP of all Department of Defense (DOD) forces in the area of responsibility (AOR) and stipulates how the TACON for FP of NAVFOR is delegated. The delegation of TACON for FP is most commonly done along, but is not limited to, Service or functional component lines or geographically determined sectors.

For more information on the protection function, see JP 3-0, Joint Operations.

(6) **Sustainment.** Sustainment is the provision of logistics and personnel services necessary to maintain and prolong operations through mission accomplishment and redeployment of the force. Sustainment provides the JFC the means to enable freedom of action, prolong endurance, and to extend operational reach. Sustainment determines the depth to which the joint force can conduct decisive operations, allowing the JFC to seize, retain, and exploit the initiative. The JFMCC makes recommendations concerning the distribution of material and services commensurate with priorities developed for JFMCC operations. A CCDR may delegate authority for a common support capability to the JFMCC. The JFMCC will usually coordinate sustainment delivery for all forces operating from a sea base.

For more guidance on the sustainment function, see JP 3-0, Joint Operations, *and JP 4-0,* Joint Logistics.

(7) **Information.** The information function helps commanders and staffs understand and leverage the pervasive nature of information, its military uses, and its application during all military operations. This function provides the JFMCC the ability

to integrate the generation and preservation of friendly information while leveraging the inherent informational aspects of all military activities to achieve the commander's objectives and attain the desired end state. The information function encompasses the management and application of information and its deliberate integration with other joint functions to influence participants' perceptions, behavior, action or inaction, and human and automated decision making.

4. Organizing and Manning the Component Headquarters

a. The component HQ organization and staffing will differ depending upon the mission, OE, existing and potential adversaries, nature of the crisis (e.g., tsunami, cyclone, earthquake), time available, and desired end state. The JFMCC's staff is typically built from an existing Service component, numbered fleet, MAGTF, or subordinate Service force staff and then augmented as required. A joint air component coordination element is often included to coordinate JFACC missions. The commander should drive the formation process and consider the following factors:

(1) What are the specified and implied tasks?

(2) Does the staff need subject matter expertise augmentation to effectively perform the assigned mission?

(3) What is the desired and expected timeline for augmentees to arrive at the staff or to become available via reachback support from remote locations?

(4) What mitigating actions has the staff taken to fill short-term gaps until required expert augmentees arrive?

(5) If employing a forward command element (afloat or ashore), have specific requirements, responsibilities, and synchronization mechanisms for the split staff been designated?

(6) During split-staff operations, how will the commander's decisions and guidance be shared with the portion of the staff not physically located with the commander?

(7) Who on the staff establishes and promulgates the battle rhythm (Figure II-3)?

b. In a maritime HQ, two complementary methods of organizing people and processes exist. The first is the doctrinal N-code structure, which organizes people by the function they perform (i.e., intelligence, logistics). The second is a cross-functional staff that organizes the staff into boards, centers, cells, and working groups that manage specific processes or tasks that do not fit well under the N-code structure and require cross-functional participation, such as targeting and assessment. The fast pace of military operations and cross-talk needed to support an operational-level command has made the cross-functional approach the preferred manner of organization, while maintaining the doctrinal roles of the N-code structure. The maritime operations center (MOC) can be thought of as a loosely bound network of staff entities overlaying the N-code structure. If a Navy component or numbered fleet commander is designated as the JFMCC, their

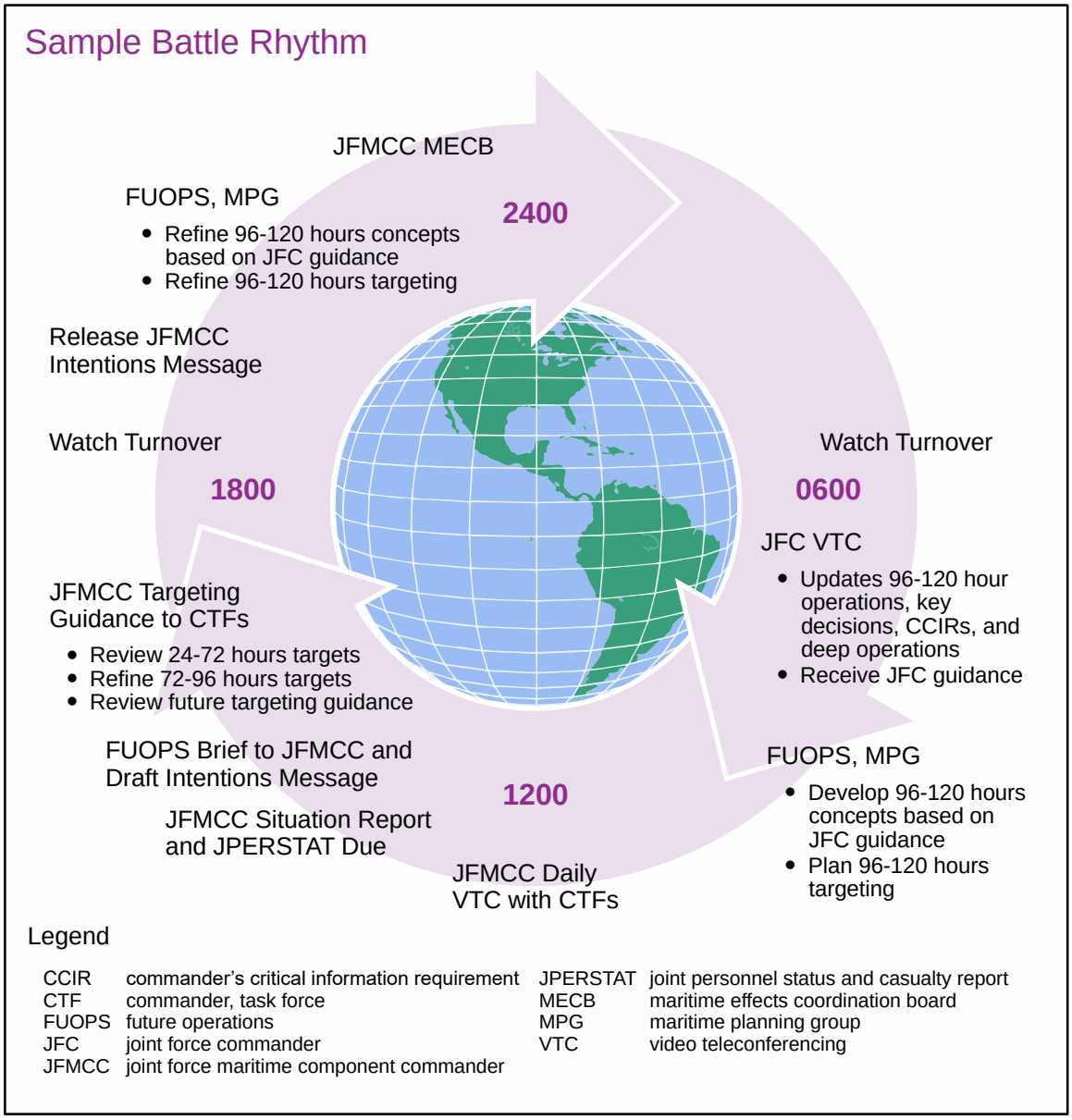


Figure II-3. Sample Battle Rhythm

existing staff or MOC will normally form the nucleus of the JFMCC staff or MOC. The formalized addition of this cross-functional network and process to the doctrinal N-code organizational structure is what constitutes the MOC. The MOC's focus is on operational tasks and activities (versus fleet management or support). It must be recognized, however, that when a commander establishes a MOC, the traditional staff code organization does not disappear. Indeed, the doctrinal N-code directorates are the foundation of the MOC. They supply the manpower, expertise, and facilities needed by the MOC to function. As a practical matter, the commander establishes and maintains only those boards, centers, cells, and working groups that enhance planning and decision making within the HQ. A fires cell, for example, is likely not required during a disaster relief operation. The commander establishes, modifies, and dissolves these functional entities as the needs of the command evolve. The generic seven-minute drill (Figure II-4) is a tool to aid participants in

Generic Seven-Minute Drill Example

Boards, Centers, Cells, and Working Groups Validation
"Seven-Minute Drill"

1. Name of board or cell: Descriptive and unique
2. Lead N-code: Who receives, compiles, and delivers information
3. When/where does it meet in battle rhythm?: Allocation of resources (time and facilities), and any collaborative tool requirements
4. Purpose: Brief description of the requirement
5. Inputs required from: Staff sections and/or boards, centers, cells, and working groups required to provide products (once approved by chief of staff, these become specified tasks)
6. When? Suspense date-time group for inputs
7. Output/process/product: Products and links to other staff organizations
8. Time of delivery: When outputs will be available
9. Membership codes: Who has to attend (task to staff to provide reps)

Figure II-4. Generic Seven-Minute Drill Example

understanding key information about the meeting and focus their participation in an efficient and productive manner. Key elements include the purpose, inputs, outputs, important members, and timelines.

c. MOCs provide an organizational framework through which maritime commanders may exercise operational-level C2.

For more information on Navy MOCs, see Navy Warfare Publication (NWP) 3-32, Maritime Operations at the Operational Level of War, *and Navy Tactics, Techniques, and Procedures (NTTP) 3-32.1,* Maritime Operations Center.

d. Liaison elements from and to other joint force and Service components are also considerations in composition and required infrastructure. Joint force command relationships, the nature of the mission, and standing Service agreements help determine liaison manning requirements. The naval and amphibious liaison element is the primary coordination element at the joint air operations center (AOC).

For more information on liaison responsibilities and joint force HQ organization, see JP 3-33, Joint Force Headquarters.

5. Task Organization of Subordinate Forces

a. The JFMCC normally delegates the authority to plan and execute tactical missions to subordinate CTF or task group (TG) commanders. This enables the JFMCC to focus

attention on the operational level and empowers subordinate commanders to employ their forces to support the commander's intent. Individual platforms are assigned or attached to these subordinate CTFs. Each CTF is assigned a commander, and only the commander reports to the JFMCC. The CTF may further subdivide the TF into TGs, task units, and task elements to exercise control at the tactical level. These subdivisions may be organized based on capabilities, missions, geography, or a hybrid of all three.

b. The JFMCC establishes the support relationships between the subordinate CTFs for various lines of operation. Further, given the nature of maritime operations and tasks assigned to a CTF, each CTF will likely be both a supported and supporting commander for a number of missions. As the common superior, the JFMCC organizes the TFs structure, delegates appropriate authorities, and establishes supporting relationships across the CTFs for the planned operation. These relationships may change by phase of an operation.

c. With respect to amphibious operations, amphibious forces are task-organized based on the mission. No standard organization is applicable to all situations that may be encountered in an amphibious operation. Each TF may be organized separately or several may be combined based upon operational requirements.

For more information on task organization with respect to amphibious forces, see JP 3-02, Amphibious Operations.

6. Navy Composite Warfare Doctrine

a. USN tactical commanders typically exercise decentralized control over assigned forces through use of composite warfare doctrine. This doctrine establishes a composite warfare organization within the task organization by assigning the commander's warfare command functions to subordinates. The composite warfare construct allows the officer in tactical command (OTC) to assign some or all of the command functions associated with mission areas to warfare commanders, functional group commanders, and coordinators, thus supporting decentralized execution. The composite warfare organization enables offensive and defensive combat operations against multiple targets and threats simultaneously. Flexibility of implementation, reinforced by clear guidance to subordinates and use of command by negation, are keys to decentralized control of the tactical force. The OTC may implement a composite warfare organization whenever and to whatever extent required, depending upon the composition and mission of the force and the capabilities of the threat. Within the composite warfare construct, the OTC may establish a subordinate composite warfare commander (CWC) who in turn may establish subordinate warfare commanders and/or functional warfare commanders. The warfare commanders that may be established include the air and missile defense commander (AMDC), the antisubmarine warfare commander (ASWC), the information operations warfare commander (IWC), the strike warfare commander (STWC), and the surface warfare commander (SUWC). The functional group commanders that may be established include the BMD commander, the maritime interception operations commander (MIOC), the mine warfare commander (MIWC), the screen commander, and the underway replenishment group commander. When the levels of activity and complexity in the

mission areas involved are considered manageable, the tasks of ASWC and SUWC can be assigned to one commander, titled the sea combat commander.

b. In maritime usage, the OTC is the senior officer present eligible to assume command or the officer to whom the senior officer has delegated tactical command. If only one task organization (e.g., TF, TG) is operating independently in a portion of the maritime operational area, the commander of that task organization is the OTC. However, when multiple task organizations are operating together in the maritime operational area, the OTC is either the common superior or the commander to whom the common superior has assigned OTC command functions. In a maritime operational area that has multiple TFs operating within it, the common superior will be the NCC/JFMCC. Unless this commander assigns OTC command functions to one of the CTFs, the command will simultaneously be an operational- and tactical-level command. Care has to be exercised to ensure cross-functional working groups within these commands have clear charters and understandings on which level they are supporting and how their products support the commander's decision making associated with that level. When warfare functions are assigned to subordinate commanders, it is assumed the necessary authority for command, control, direction, and coordination required for the execution of those functions are delegated with it.

c. While acknowledged in joint doctrine, the OTC and CWC are maritime, unique constructs. Joint community understanding of these C2 constructs is important when coordinating or working with maritime forces. The OTC controls CWC and subordinate warfare commander's actions through command by negation. Allied and multinational maritime procedures and instructions use the term **command by veto** to mean the same thing. **Command by negation** acknowledges that, because of the often distributed and dispersed nature of maritime warfare, it is necessary to pre-plan the actions of a force to an assessed threat and delegate some warfare functions to subordinate commanders. Once such functions are delegated, the subordinate commander is to take the required action without delay, always keeping the OTC informed of the situation. The CWC orchestrates operations to counter threats to the force, while the OTC retains close control of power projection and specific sea control operations. Each CWC focuses on its surveillance areas; classification, identification, and engagement areas (CIEAs); and vital areas (VAs) (see Figure IV-2). OTCs who are also CTFs have the concurrent responsibility to support the JFMCC's planning for maritime operations. Although assignment of various warfare commanders will allow control of different capabilities on a single platform by multiple commanders, only one commander may exercise TACON for the ship's movements and maneuver.

d. The CWC may form temporary or permanent functional groups within the overall organization. Functional groups are subordinate to the CWC and are usually established to perform duties that are generally more limited in scope and duration than those acted upon by warfare commanders. In addition, the duties of functional group commanders generally span assets normally assigned to more than one warfare commander. Functional group commanders collect and disseminate information. In certain situations, they are assigned authorities to respond to threats with assigned assets. When authorized, functional group commanders, like warfare commanders, may autonomously initiate

action. The CWC controls actions through command by negation. They may further deploy weapons and sensors, regardless of the commander exercising TACON of the unit in which the weapon and or sensor is installed.

e. Coordinators are asset and resource managers. They carry out the policies of the OTC or CWC (if assigned) and respond to the specific tasking of either warfare commanders or functional group commanders. Coordinators differ from warfare commanders and functional group commanders in that coordinators execute tasking but do not initiate autonomous actions. Coordinators may include, but are not limited to, air resource element coordinator, airspace control authority (ACA), cryptologic resource coordinator, and force track coordinator. Figure II-5 shows the relationship of the warfare commanders, functional group commanders, and coordinators.

For additional information on composite warfare doctrine, see Chapter IV, "Command and Control and Other Operational-Level Considerations for Specific Maritime Operations;" NWP 3-56, Composite Warfare: Maritime Operations at the Tactical Level of War; *and Allied Tactical Publication-1,* Allied Maritime Tactical Instructions and Procedures.

7. Marine Air-Ground Task Force

The MAGTF is the USMC's principal organizational construct for conducting missions across the competition continuum. MAGTFs provide CCDRs with scalable, versatile expeditionary forces able to assure allies; deter potential adversaries; provide persistent US presence with little or no footprint ashore; and respond to a broad range of contingency, crisis, and conflict situations. They are balanced, combined-arms force packages containing organic command, ground, aviation, and logistics elements. A single commander leads and coordinates this combined-arms team through all phases of deployment and employment. As the name indicates, MAGTFs are organized for the specific tasks at hand and specifically tailored by mission for rapid deployment by air and/or sea.

8. Multinational Considerations

Command authority for a multinational force commander (MNFC) is normally negotiated between the participating nations and can vary from nation to nation. Command authority could range from OPCON, to TACON, to designated support relationships, to coordinating authority. The United States, particularly the USN, frequently operates as an element of a North Atlantic Treaty Organization (NATO) force and routinely uses NATO doctrine, tactics, techniques, and procedures (ratified by the United States via standardization agreements [STANAGs]) to guide those operations.

For overarching doctrine on multinational operations, see JP 3-16, Multinational Operations. *For additional information on NATO maritime operations, see Allied Joint Publication (AJP)-3.1,* Allied Joint Maritime Operations.

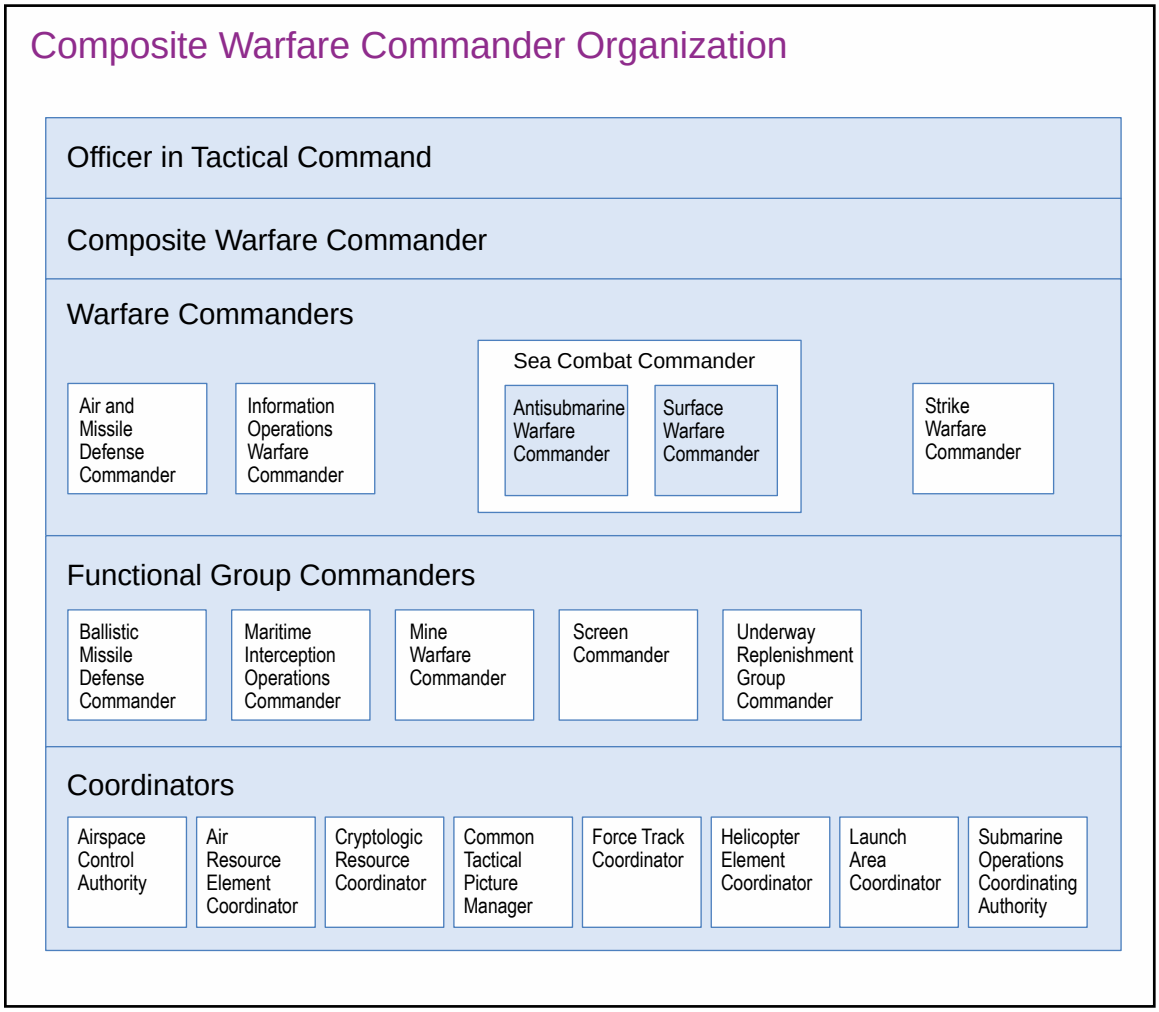


Figure II-5. Composite Warfare Commander Organization

9. Supported Maritime Commander Considerations

Supporting component commanders should understand the optimal C2 organization and execution can differ between maritime and land AOs. Acknowledging and understanding these differences as well as C2 optimization in the maritime operational area is critical to the successful execution of joint maritime operations. Synchronization of efforts within land or maritime operational areas with theater and/or JOA-wide operations is of particular importance.

For additional information on supported maritime commander considerations, see NWP 3-56, Composite Warfare: Maritime Operations at the Tactical Level of War.

10. Supporting Maritime Commander Considerations

In addition to activities inherent to maritime operations (e.g., fleet AD, SUW, amphibious warfare, antisubmarine warfare [ASW]), the JFC may task the maritime commander with support responsibilities to other functional component commanders. This support includes air and missile defense (AMD), joint fire support, interdiction, strategic

attack, CAS, and naval surface fire support (NSFS). Supported commanders should understand that most maritime platforms are multi-mission capable and are routinely tasked to support different missions and warfare commanders. They are rarely made available for tasking outside the maritime component because their multi-mission capabilities will require them to fulfill activities inherent to maritime operations as well as supporting operations.

For additional information on supporting maritime commander considerations, see NWP 3-56, Composite Warfare: Maritime Operations at the Tactical Level of War, *and Chapter IV, "Command and Control and Other Operational-Level Considerations for Specific Maritime Operations."*

CHAPTER III
PLANNING JOINT MARITIME OPERATIONS

"It is the human element in warfare which may, if understood by the commander, prove to be the only way of converting an impossibility into a successful reality. With trained men and proper materials, the commander's task is reduced to the preparation of good plans."

War Instructions, US Navy, 1944

1. Maritime Planning Processes and Products

a. Planning for the employment of military forces is an inherent responsibility of command. Joint planning integrates military actions with those of other instruments of national power and our multinational partners in time, space, and purpose to attain a specified end state. Planning begins with the end state in mind, providing a unifying purpose around which actions and resources are focused. Military planning is a comprehensive process that enables commanders and staffs at all levels and in all Services to make informed decisions, solve complex problems, and ultimately accomplish assigned missions. The JFMCC's operational-level planning simultaneously supports the strategic and operational requirements of the JFC and frames the tactical-level requirements of subordinate commanders. The JFMCC's planning is driven by the JFC's guidance and intent, supports JFC staff planning efforts, and should be closely coordinated with component planning. In conducting joint planning, commanders and staff blend operational art, operational design, and the joint planning process (JPP) in complementary fashion as part of the overall process that produces the eventual plan or order that drives the joint operation. The JPP is an orderly, analytical process that consists of a set of logical steps to analyze a mission; develop, analyze, and compare alternative COAs; select the best COA; and produce a plan or order. Through the JPP, planners effectively translate the commanders planning guidance into a feasible COA and CONOPS by which the joint force can accomplish its assigned mission and attain the military end state. It involves simultaneous efforts to address near-term and far-term operations and should be flexible enough to adjust to dynamic unforeseen situations and new taskings.

b. Most maritime platforms are multi-mission capable and are routinely multi-tasked to support different missions and warfare commanders. JFMCC, OTC, and CWCs and their staffs should be able to recognize and prioritize requirements, address conflicts and limitations, and integrate the various capabilities of assigned and attached forces and those made available for tasking. However, it is important to understand the implications of multi-mission tasking (e.g., ASW, strike warfare [STW], CAS, air operations in maritime SUW, sea control) on individual platforms and personnel. Factoring these implications into decision making, especially regarding command relationships and employment, is paramount. Specific capabilities of a single multi-mission ship, or other maritime force, may be in direct support of one unit or warfare commander, while other capabilities inherent to that same platform are in general support of another. Another complication is that this often diverse tasking can change significantly and rapidly, as events in this complex environment unfold. The JFMCC manages these shifts in tasking and delineates

how to provide this varied simultaneous support to sometimes geographically separated forces. The JFMCC management mechanism is normally via OPORDs, fragmentary orders, daily intentions messages, and operational tasking (messages) (OPTASKs). This guidance and direction are normally updated daily but may be modified more frequently (i.e., hourly). These directives should incorporate the JFC's intent, support approved subordinate CONOPS, consider requests prompted by the dynamics of the OE, work within the required operations tempo, and frame the daily operational planning conducted by the JFMCC's staff and assigned forces.

c. The Navy planning process assists commanders and their staffs in analyzing the OE and distilling information to provide the commander a coherent framework to support decisions. The process, which parallels the JPP, is thorough and helps apply clarity, sound judgment, logic, and professional expertise. It provides commanders and their staffs a means to organize planning activities, transmit plans to tactical forces, and share a critical common understanding of the mission. Interaction among various planning steps allows a concurrent, coordinated effort and the flexibility required to make efficient use of available time. It also facilitates continuous information sharing.

2. Integration with Joint Planning Process

a. The JFMCC's staff planning process is consistent with the JPP as outlined in JP 5-0, *Joint Planning.* The JFMCC's staff uses a synchronization process similar to a JFC's staff to facilitate coordination between subordinates. All levels of command have processes for analysis and assessment during execution. Collaboration is critical to synchronize planning, execution, and assessment processes and enables multiple echelons to work efficiently and effectively together. Creating timely mechanisms for systematic assessment and decision making enable the entire force to rapidly adapt and leverage opportunities in complex dynamic environments.

b. JFMCCs and their staffs not only contribute to the JFC's planning efforts but should also contribute to the development of other joint force components' supporting plans and OPORDs. Therefore, maritime staffs should be well versed in the JPP; the Chairman of the Joint Chiefs of Staff Manual (CJCSM) 3122 series, *Joint Operation Planning and Execution System;* JP 3-0, *Joint Operations;* JP 5-0, *Joint Planning;* and approved joint terminology. Multinational operations are the norm in the maritime domain, and multinational procedures (e.g., NATO STANAGs and ratified AJPs) may impact the maritime component's battle rhythm and processes more so than other joint force components. Therefore, maritime staffs may need to refer to NATO publications, such as AJP-3.1, *Allied Joint Maritime Operations;* AJP-3.3.3, *Allied Joint Doctrine for Air-Maritime Coordination;* Maritime Tactical Publication-01, *Multinational Maritime Tactical Instructions and Procedures;* and Maritime Procedural Publication-01, *Multinational Maritime Voice Reporting Procedures.*

3. Organizing the Operational Area

a. Commanders and their staffs should assess friendly factors of space, time, forces, and degree of risk tolerance individually and then balance them in combination against the

ultimate or intermediate objective. The balancing of operational factors versus objective in a major operation may be determined by the framework of a campaign. Any serious disconnect or mismatch between the ultimate or intermediate objective and the corresponding space-time-force factors might complicate and possibly endanger the success of the operation. If the imbalance cannot be resolved, then the objective should be changed and brought into harmony with the operational factors. This process is complicated and time consuming. It is more an art than a science. In practice, operational factors will rarely be completely, or even approximately, in harmony with one another or with the assigned objective.

b. In harmonizing friendly operational factors against the respective objective, all considerations, when possible, should start with the quantifiable factors of space and time (i.e., operational reach). The factor of time is more dynamic and changeable than the factor of space. Normally, the factors of space and time can be calculated with a high degree of confidence. On the other hand, the factor of force is often difficult to evaluate properly because of the presence of many elements that are hard or impossible to quantify. A significant change in any of these factors will invariably disturb the overall balance and require a reassessment of all the factors. Hence, the process remains dynamic and the commander should remain alert to detect changes that require reassessment.

c. The factors of space and force in a maritime AO can be balanced by reducing the number or scale of the military objectives to be accomplished. For example, limiting efforts to obtain sea control to a much smaller area or to specific physical medium (e.g., surface and air but not subsurface or surface and subsurface but not air), increasing the number or combat potential of the JFMCC's forces or reducing the number of ships/aircraft employed in support of other components can achieve this aim. The factors of space and time can also be brought into balance by operating from shorter lines of operation, employing highly mobile forces, deploying maritime forces closer to the scene of potential conflict, pre-positioning weapons/equipment and logistical supplies, reducing the size of the operational area, limiting efforts to obtain temporary instead of permanent sea control in a given area, achieving operational surprise, conducting military deception, or accepting larger risks.

4. Other General Planning Considerations

a. **Intelligence.** The senior intelligence officers of the maritime component should know their command's intelligence and information requirements and be aware of the priority intelligence requirements (PIRs) of the higher, adjacent, and supporting and subordinate commands, as well as national-level intelligence requirements. Joint intelligence preparation of the operational environment (JIPOE) is the analytical process used by joint intelligence organizations to produce intelligence assessments, estimates, and other intelligence products in support of the commander's decision-making process. The process is used to analyze all relevant aspects of the OE and to determine a threat's ability to operate within that OE. JIPOE products are used to prepare staff estimates; define the OE; describe the impact of the OE on threat and friendly forces; evaluate the capabilities of threat forces operating in the OE; and determine and describe potential threat objectives, COGs, critical vulnerabilities, decision points, COAs, and civilian activities that might

impact military operations. The JIPOE effort must be fully coordinated, synchronized, and integrated with the separate intelligence preparation of the battlespace efforts of the component commands and Service intelligence centers. Additionally, JIPOE relies heavily on inputs from several related, specialized efforts, such as geospatial intelligence preparation of the environment and medical intelligence preparation of the OE. All staff elements of the joint force and component commands fully participate in the JIPOE effort by providing information and data relative to their staff areas of expertise. However, JFCs and their subordinate commanders are the key players in planning and guiding the intelligence effort, and JIPOE plays a critical role in maximizing efficient intelligence operations, determining an acceptable COA, and developing a CONOPS. Commanders should integrate the JIPOE process and products into the joint forces planning, execution, and assessment efforts. The JIPOE process can be applied across the competition continuum and to each level of warfare. The JIPOE process is described in detail in JP 2-01.3, *Joint Intelligence Preparation of the Operational Environment.*

(1) The JFMCC staff develops a specific collection strategy and posture for each operation to satisfy the commander's critical information requirements (CCIRs), which includes the PIRs, and other requirements. The JFMCC is also responsible for intelligence support of subordinate forces and intelligence support tasks directed by higher authority. The JFMCC defines tactical-level intelligence responsibilities and prioritizes maritime-related intelligence requirements of tactical forces. The overall intelligence goal is to provide the JFMCC and maritime forces with accurate, timely, and relevant intelligence to support an understanding of the area of influence and area of interest.

(2) The size and composition of J-2 for the JFMCC's staff is dependent upon the joint force maritime component command organization and scope of the operation. Intelligence requirements include access to national, theater, and tactical intelligence systems/data; core analysis capability; ability to provide warnings; intelligence collection management skills; targeting capability; and systems and administrative support.

(3) When a Service component commander is designated as a JFMCC, the core intelligence staff normally assumes additional responsibility for operational-level intelligence matters. This can be a significant expansion of the scope of work required to support operational-level staff requirements and decision making and may require augmentation of the JFMCC's J-2. Augmentation considerations include the nature of the contingency, specific additional skills required to execute the mission, depth of intelligence capability in the existing staff, and additional volume and type of intelligence products required. Figure III-1 reflects skill sets that are typically required to augment the JFMCC's intelligence staff.

b. **Fires and Targeting**

(1) The maritime fires element in the MOC, supported by the CTFs, plans, coordinates, synchronizes, and executes organic maritime and joint fires to create lethal or nonlethal effects to set the conditions for success in the maritime AO. The JFMCC's focus is on shaping those opponent formations, functions, facilities, and operations that could impact the maritime AO. In addition to providing fires from organic sources, the JFMCC

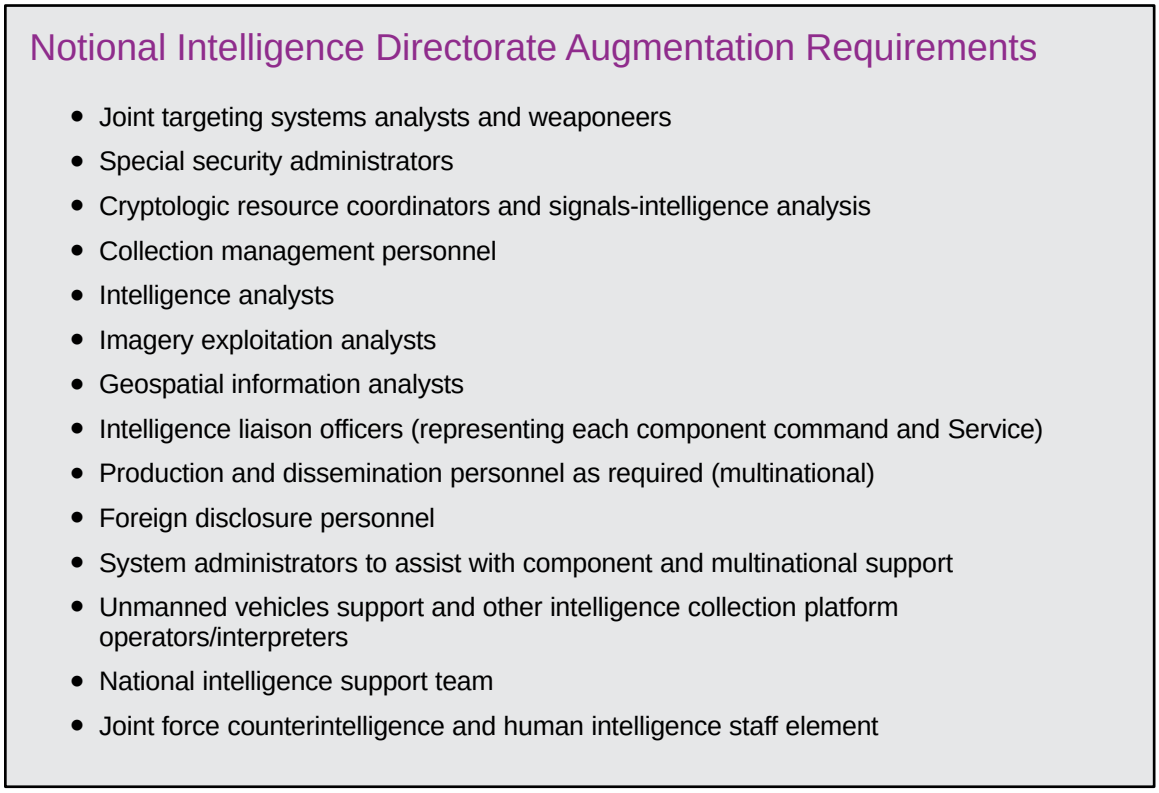


Figure III-1. Notional Intelligence Directorate Augmentation Requirements

synchronizes and integrates all movement and maneuver, fires, and interdiction in support of operations within the maritime AO. Fires typically produce destructive effects but can be used to produce nondestructive effects. Planners at the operational and tactical level should consider naval integrated fires. Naval integrated fires are the coordinated employment of capabilities and weapons to create lethal and nonlethal effects by using existing deliberate and dynamic targeting decision aids and cross functional working groups. Given the unique structure of the maritime force to conduct operations ashore, afloat, beneath the sea, and in the air, planners should consider operations where strengths are leveraged to create effects in other parts of the OE. The fires element function encompasses a number of tasks, missions, and processes, including:

(a) Conduct organic maritime and joint targeting to select and prioritize targets with desired effects and match the appropriate capability (organic maritime or other component commanders' weapons) to them, taking account of command objectives, operational requirements, and capabilities.

(b) Provide joint fire support and joint fires to assist joint forces to move, maneuver, and control territory, populations, airspace, and key waters.

(c) Counter air and missile threats to integrate offensive and defensive operations and capabilities to attain and maintain a desired degree of air superiority and FP. These operations are designed to destroy or negate enemy aircraft and missiles before and after launch.

(d) Divert, disrupt, delay, or destroy the enemy's military surface capabilities before those capabilities can be used effectively against friendly forces or to otherwise achieve the enemy's objectives.

(e) Conduct strategic attack, to include offensive action against military, political, economic, or other targets that are selected specifically in order to achieve strategic objectives.

(f) Employ information-related activities to influence, disrupt, corrupt, or usurp the adversary's decision-making processes.

(g) Assess the results of employing fires to determine the effectiveness and performance of fires, as well as their contribution to the larger operation or objective.

(2) Fires from maritime platforms can create a range of effects and are a critical component of maritime power projection. Examples of maritime fires employed against targets ashore or over land include interdiction, CAS, suppression of enemy AD, counterair (offensive and defensive), and NSFS (direct and general).

(3) The use of fires is one of the principal means of shaping the JFMCC's AO. Information-related activities employed to affect enemy information and information systems, are integral to this process. The JFMCC's interests are those enemy forces, functions, facilities, and operations that impact plans and operations.

(4) Joint interdiction operations are a key focus for JFMCC's fires. Fires from maritime assets may be major active elements of interdiction. The key attributes in the JFC's joint interdiction operations are the flexibility, maneuverability, and speed of fires assets. Additional information on maritime interdiction can be found in JP 3-03, *Joint Interdiction.*

(5) Concentrated fires, even from dispersed forces, are possible because of the maneuverability of forces and the extended range of their fires. The JFMCC's resources for fires encompass forces assigned by the JFC and may include sea- or shore-based aircraft including fixed-wing, rotary-wing, and tiltrotor assigned to theater naval forces, MAGTF, or other aircraft made available for tasking; armed and attack helicopters; surface- and subsurface-launched cruise missiles and torpedoes; land-based surface fires (e.g., artillery, mortars, and rockets); surface gunnery, including NSFS; surface-, subsurface- and air-launched mines; air, land, maritime, space, SOF, and unmanned vehicles; and cyberspace capabilities.

(6) Constant coordination between fires elements will be required due to the technical nature of various maritime fires and weapons systems (e.g., programming, guidance, and control procedures) and the fact that a single platform's multiple systems may be supporting numerous commanders in geographically separated areas and the resultant, often complex, command relationships, including the nature of support (e.g., direct, general). The JFMCC synchronizes operational fires and C2 by the active participation of the strike and NSFS cell, supporting arms coordination center, and landing

force fire support planners, where available, in the planning and targeting processes. Specific JFMCC targeting functions and responsibilities are listed in Figure III-2.

(7) Land and maritime force commanders normally use a four-phase targeting process known as decide, detect, deliver, and assess (D3A) for fires planning, execution, and interface with the joint targeting cycle. D3A incorporates the same fundamental

Joint Force Maritime Component Commander Targeting Functions and Responsibilities

- Conduct target development.
- Advise the joint force commander (JFC) on the application of maritime operational fires.
- Identify maritime fires support requirements to other components.
- Provide apportionment recommendations to the JFC.
- Recommend joint force maritime component command assets for JFC allocation.
- Advise on joint fires asset distribution and priority of forces.
- Develop priorities, timing, and effects for interdiction within the joint force maritime component commander's (JFMCC's) area of operations (AO).
- Develop JFMCC targeting guidance and priorities.
- Develop a prioritized target nomination list for inclusion in the joint target list, restricted target list, and the no-strike list.
- Nominate targets for inclusion on the JFC's time-sensitive target (TST) list and maintain their own lists of high priority targets.
- Provide appropriate representation to the JFC's joint fires element (JFE) and joint targeting working group/coordination board when established.
- Consolidate and nominate deconflicted and prioritized targets for inclusion in the joint integrated prioritized target list.
- Provide timely and accurate reporting to the JFE in support of joint operations assessment.
- Provide tactical and operational assessment to the JFE for incorporation into the JFC's overall assessment efforts.
- Coordinate components dynamic targeting via established procedures.
- Integrate and deconflict JFMCC fires activity with the JFC and other component commanders or forces.
- Plan, coordinate, and supervise the execution of deep supporting fire operations within the maritime AO.
- Coordinate with designated airspace control authorities for all planned airspace requirements.
- Staff and man the time-sensitive strike branch in the assigned operations cell and ensure TST activity is in accordance with the JFC's TST guidance.

Figure III-2. Joint Force Maritime Component Commander Targeting Functions and Responsibilities

functions of the joint target cycle. The D3A methodology facilitates synchronizing maneuver, intelligence, and fire support. D3A is not driven by the battle rhythm associated with joint air operations. Components strike targets within their AO with organic capabilities. If the maritime force has insufficient organic assets to strike a target within the maritime AO, or if a maritime target is outside the maritime AO, the targets can be nominated for joint targeting and/or prosecution by another component's assigned forces. Likewise, the maritime force will routinely offer excess strike assets for use in joint missions and/or as required by other components. As part of deliberate targeting, the maritime operational commander coordinates target nominations for the joint target list, no-strike list, restricted target list, and maritime prioritized target list for organic strikes in the maritime AO. Use of organic capabilities can help to ensure the maritime operational commander's decision cycle is inside the enemy's decision cycle. Time-sensitive targets (TSTs) and targets of opportunity are usually fleeting with very small windows for weapon engagement. Commanders and their staffs, in coordination with joint components and other departments and agencies, develop dynamic targeting guidance, which should include priorities and guidance for dynamic targeting and identification of requirements by subordinates; prioritization of targets, including TSTs; guidance for acquisition; TST type and description; desired result; approval authority; acceptable risk; and action against the targets. The commander should articulate risk tolerance sufficiently to let on-scene commanders (OSCs) understand his intent when dynamic targeting requires accelerated coordination. The JFMCC and staff must ensure dynamic targeting is understood and rehearsed. Components nominate candidate TSTs, high-payoff targets, and high-value targets during deliberate targeting.

For more information on fires and targeting in the maritime domain, see JP 3-60, Joint Targeting; *JP 3-09,* Joint *Fire* Support; *JP 3-09.3,* Close Air Support; *and NWP 3-09,* Navy Fire Support.

c. **MDA**

(1) MDA is the effective understanding of anything associated with the maritime domain that could impact the security, safety, economy, or environment of a nation. Obtaining and maintaining accurate MDA is a key enabler of an active and layered maritime defense in depth and facilitates more expeditious and precise actions by the JFMCC and subordinate commanders. Some degree of MDA is also required to operate effectively as a component of the joint force. Achieving awareness of the maritime domain is a challenge due to the vastness of the oceans and seas, the large volume of maritime commerce, sensor limitations, the great length of shorelines, and size of port areas that provide concealment and numerous access points to the land. MDA integrates all-source intelligence, law enforcement information, open-source data, and information from public and private sectors, nationally and internationally.

(2) The primary method for information sharing, gaining situational awareness, and supporting collaborative planning in the maritime domain is through development and maintenance of a maritime common operational picture (COP). Networking maritime regions and resources into a COP can present useful data in a form that supports a wide range of planning, decision, execution, and assessment requirements. This data can also

support CCDR requirements to achieve an AOR-wide, single integrated COP. The maritime data can range from a global "snapshot" to the detailed information required by the JFMCC and subordinate commanders within their specific operational area. As hostilities escalate, maritime data may be difficult to acquire or transport due to geographic or atmospheric limitations, self-inflicted interference, or enemy attacks on the maritime C2 system.

d. **Sustainment**

(1) The sea remains the principal transport medium for large, heavy, and bulky items, as well as large volume requirements. Therefore, maritime logistic capabilities are an important consideration in the development of the JFC's concept of logistic support. The availability of shipping and the ability to transfer supplies ashore, to include the use of joint logistics over-the-shore (JLOTS) capabilities, may influence where and when military operations take place. Additionally, SLOCs and ALOCs, as well as aerial ports of debarkation (APODs) and seaports of debarkation (SPODs), may be considered a critical vulnerability and will require continual assessment and protection. The military sealift and merchant marine vessels, which transport the preponderance of the joint force's materiel, remain dependent upon secure ports and airfields in a potential objective area. Sealift operated by multinational partners may vary in its capabilities but should be factored in logistics planning. Interagency partners, international organizations, and NGOs are unlikely to possess any form of organic sealift.

(2) Each Service is responsible for logistic support of its own forces, except as otherwise provided for by agreement with other departments or agencies; multinational partners; or by assignment to a common, joint, or cross-servicing provider. The JFMCC will usually assume logistic coordination responsibilities for all Services and forces operating from a sea base.

(3) The CCDR may designate common-user logistics (CUL) support for a particular joint operation. As such, designated Service component commanders may be tasked to provide CUL support to other joint forces, multinational partners, or other organizations (e.g., other governmental organizations and NGOs) in a JOA. CUL support can be achieved from the use of short-term, inter-Service support agreements between Service components. CUL support requirements are normally carried out under the auspices of an NCC or a numbered fleet commander and may be a JFMCC's responsibility when the JFMCC is designated as the lead component.

(4) Authority to direct logistics is not included in the JFMCC's command authority. However, a CCDR may assign responsibility for the planning, execution, and/or management of as many common support capabilities to subordinate commanders as required to accomplish the CCDR's objectives.

(5) Among other functions, the JFMCC's staff monitors and assesses operations and coordinates logistics movements and plans to minimize the maneuvers and time required to support the resupply of forces at sea and ashore. In general, the JFMCC's logistics readiness center focuses on key logistics issues that may have an adverse effect

on the maritime portion of the joint campaign and in general manages by exception only. Routine administrative, personnel, and logistics management are the responsibility of the JFC and subordinate Service component commanders.

(6) The ability to conduct at-sea transfer of people and materiel, for ship-to-ship and ship-to-shore movement or maneuver purposes, is a key enabler to deploy, employ, and sustain joint forces. The foundation of this capability is provided by amphibious warfare ships, aircraft carriers, and Military Sealift Command ships. Assets such as the expeditionary sea base, expeditionary fast transport intratheater connectors, the expeditionary transfer dock, improved maritime pre-positioning capabilities, and integrated naval logistics should be considered when planning operations and allocating forces. When employed in combination with other naval assets, these capabilities enhance access by reducing the joint force's reliance on ports and airfields in the operational area. Maritime forces have integral logistic support capabilities, including repair and medical facilities that provide individual maritime units and TFs autonomy and the ability to operate for extended periods at considerable distance from shore support.

(7) As crisis, contingency, and major operations result in more demand on existing facilities and increased operational tempo, existing shore-based infrastructure may become inadequate to meet the needed level of support for the increased numbers of units afloat and to Navy and Marine Corps units ashore. The naval advanced logistic support sites and naval forward logistic sites should be expanded to assist in providing required additional support. That expansion is accomplished through the Navy's advanced base functional components (ABFCs). ABFCs are preplanned modular unit facility designs that provide a variety of functional capabilities to extend the commander's logistic infrastructure supporting naval expeditionary operations. Because of this, they can be used to extend shore-based infrastructure as much or as little as needed. ABFCs are employed when organic, contracted, or host nation (HN) facilities cannot provide the functionality in a time frame required by the commander or when having a standardized design will speed delivery, such as a common design for schools built during humanitarian missions. ABFCs can be combined with other ABFCs or multiplied for different missions or greater capacity. An ABFC is designed to be site adapted or configured for a particular mission. ABFCs are developed to minimize the planning, acquisition, shipping, and construction time required for use.

(8) Increased demand and operational tempo will often result in greater reliance on nonorganic support (e.g., HN support, contracted support). Operational contract support (OCS) is the process of planning for and obtaining supplies, services, and construction from commercial sources in support of joint operations. The JFMCC may integrate OCS and HN support with their plan and follow CCDR guidance for requirements development and contractor management. For more guidance on OCS, see JP 4-10, *Operational Contract Support;* CJCSM 3130.03, *Planning and Execution Formats and Guidance;* and CJCSM 4301.01, *Planning Operational Contract Support.*

(9) The following provides a non-exhaustive checklist of the JFMCC's logistic planning considerations:

(a) Logistic plans should be integrated with CCDR theater sustainment annexes and should be synchronized with the JFC's concept of logistic support, Service component, and multinational partner logistic plans.

(b) Logistic personnel must be involved early in the staff planning and undertake an analysis of the logistic support capabilities required for each of the COAs being considered.

(c) Develop a concept of logistics support that supports commander's intent and CONOPS. At a minimum, this should include the priorities of sustainment for each phase of the operation, describe how logistics assets will be organized and positioned to execute the mission, and command relationships.

(10) The JFMCC's logistic directorate normally participates on those boards, centers, and working groups battle rhythm events of critical importance to the success of maritime operations. The joint logistics coordination board, theater joint transportation board, and the joint movement center, which are transportation-related, may have significant impact on maritime operations and are examples of higher-level logistic boards on which the JFMCC participates. Among other functions, the JFMCC's staff coordinates and directs logistic plans and movements of assets to minimize the time required to support resupply of forces at sea. Other boards and centers of significant importance to the JFMCC include the joint material priorities and allocation requirements review board, joint civil-military engineering board, joint facilities utilization board, joint environmental management board, joint contracting support board, and joint petroleum office.

(11) The JFMCC does not normally convene separate joint logistic boards and working groups except when needed to coordinate critical support within the JFMCC's AO. Possible JFMCC-established boards and working groups may include a logistics working group and a logistics coordination board.

(a) The logistics working group is the primary forum to allow action officers within the JFMCC and often representatives from subordinate and stakeholder logistics commands to coordinate actions as the result of the logistics coordination board or to develop recommendations for decision at the subsequent logistics coordination board.

(b) A JFMCC's coordination board is the primary forum in which logistics collaboration and coordination occurs and offers an opportunity for the logistics director or designated representative to discuss planned or developing operations and for subordinate logisticians to call attention to a problem the component logisticians cannot solve themselves.

For more information on maritime logistics planning, see NWP 5-01, Navy Planning, *and NTTP 5-01.4,* Navy Planning, Logistics.

e. **C2 Systems Support**

(1) Sensor capability resident in the joint maritime force may support the joint force collection plan and may be integrated into the joint data network. Sensor tasking

procedures, allocation of collection assets, and product dissemination should be determined early in the planning process, clearly defined in supporting plans and tactical procedures, and be adaptable to changing requirements. The JFMCC's staff should access theater and national sensor products to enhance situational awareness, facilitate targeting, and augment organic operational assessment capabilities.

(2) The JFMCC's J-6 provides communications system functional expertise to the JFMCC. The J-6 staff's role is to focus on key communications issues that can have an adverse effect on the JFMCC portion of the campaign, electromagnetic spectrum management, and interference deconfliction. Routine communications system management is the responsibility of the JFC and the subordinate component commands. Communications system hardware is normally a Service component responsibility. However, the JFMCC designates specific force communications functions on an exception basis. Only communications issues affecting the conduct of the operational mission are of concern to the JFMCC's J-6. Guidance to supporting commanders is provided in formal standard operating procedures and OPTASKs.

f. **Protection.** The JFMCC is responsible to the JFC for all aspects of maritime FP. The JFMCC creates FP plans and sets priorities for the forces. FP is a function routinely conducted by maritime forces and essential to mission accomplishment.

g. **Environmental considerations** should be integrated into planning for maritime operations and are included in Annex L (Environmental Considerations) of the OPLAN. Commanders should take environmental factors into account during planning, execution, and conclusion of an operation. Commanders should also clearly identify guidance that may be different from the normal practices of the member nations and obtain agreement from participating nations, as necessary. Besides agreeing on common goals and objectives for the operation, commanders of participating multinational forces should reach some understanding on environmental protection measures during the operation. Failure to accomplish this may result in misunderstandings, decreased interoperability, and a failure to develop and implement a successful environmental annex and plan for the operation. Failure to consider environmental factors will also make it harder for commanders to ensure compliance with applicable US environmental laws, DOD and CCMD policy, and environmental protection obligations imposed by international agreements. Among other things, failing to comply with applicable environmental requirements (which may include analysis of environmental impacts on a HN) could produce an erosion of support or acceptance of the operation at home and abroad. Environmental considerations may include those listed in Figure III-3.

h. **Weather.** Weather has a significant impact on maritime operations and may influence a commander's decision making. Seasonal fluctuations in weather may have strategic significance. Flight operations, amphibious operations, and sonar performance may be made more difficult by high sea states and extreme high or low temperatures. Adverse conditions may also be used to advantage. A submarine, for example, may use poor sonar conditions to avoid detection. The mobility of maritime forces may allow them to move to an operating area where conditions are more favorable. An aircraft carrier may, for instance, seek out and exploit a localized open window in otherwise poor visibility to

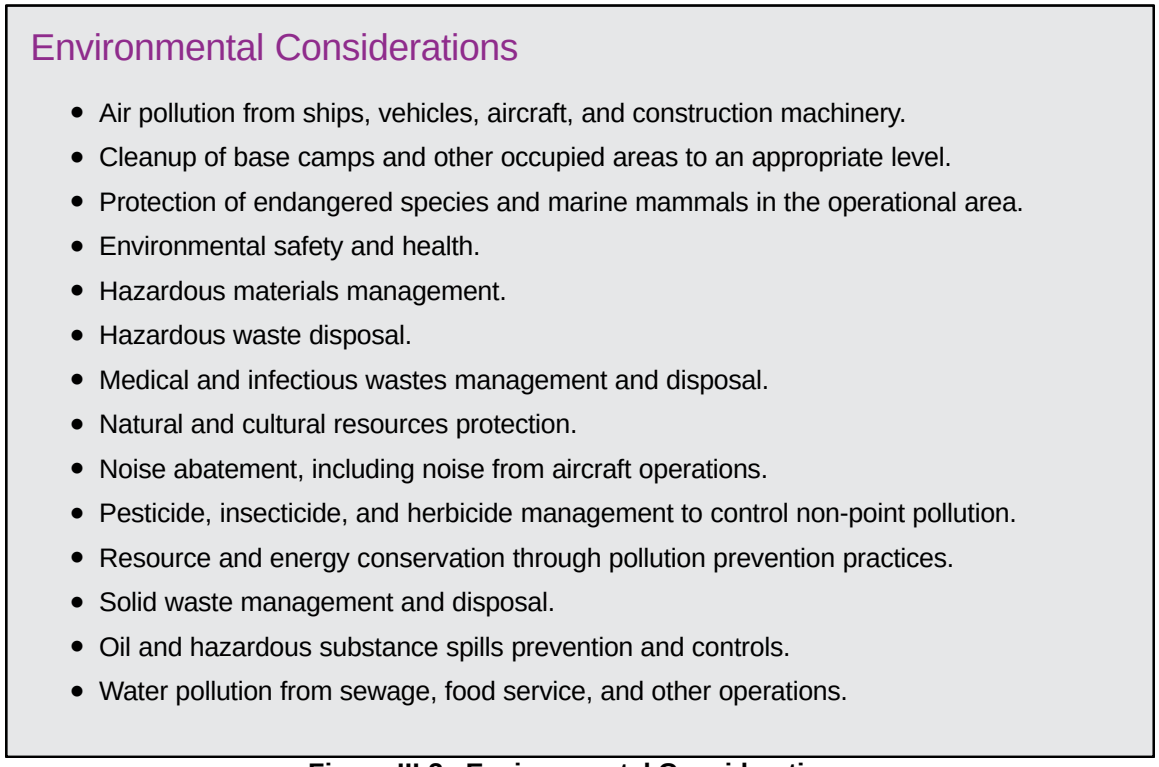


Figure III-3. Environmental Considerations

continue flight operations. This may be a particularly significant capability when shore-based aircraft are weather-bound. Characteristics such as wave height, precipitation, and sea spray impact visibility and radar/sensor effectiveness for platforms and munitions. Ducting, which is a phenomenon that allows radar energy to travel extended distances within a few hundred feet of the sea surface (under certain conditions), can have a major impact on tactical planning and force positioning.

i. **Law of the Sea**

(1) The oceans of the world traditionally have been classified under the broad headings of internal waters, territorial seas, and high seas. Airspace has been divided into national and international airspace. In the latter half of the 20th century, new concepts evolved, such as the EEZ and archipelagic waters, that dramatically expanded the jurisdictional claims of coastal and island nations over wide expanses of the oceans previously regarded as high seas. The phenomenon of expanding maritime jurisdiction and the rush to extend the territorial sea to 12 nautical miles and beyond were the subject of international negotiation from 1973 through 1982 in the course of the Third United Nations Conference on the Law of the Sea. That conference produced the 1982 UNCLOS, which came into effect on 16 November 1994. In 1983, the US announced it would neither sign nor ratify the 1982 UNCLOS due to perceived fundamental flaws in its deep seabed mining provisions. Further negotiations resulted in an additional agreement regarding Part XI, which replaced the original deep seabed mining provisions. This agreement contains legally binding changes to the 1982 UNCLOS and is to be applied and interpreted together

with the UNCLOS as a single treaty. As of the date of this publication, the Senate has not taken action on this treaty.

(2) Although the United States is not a party to UNCLOS, it considers the navigation and overflight provisions therein reflective of customary international law and thus acts in accordance with UNCLOS, except for the deep seabed mining provisions. President Reagan's 10 March 1983 Oceans Policy Statement provides: first, the United States is prepared to accept and act in accordance with the balance of interests relating to traditional uses of the oceans [in the UNCLOS]—such as navigation and overflight. In this respect, the United States will recognize the rights of other states in the waters off their coasts, as reflected in the Convention, so long as the rights and freedoms of the United States and others under international law are recognized by such coastal states. Second, the United States will exercise and assert its navigation and overflight rights and freedoms on a worldwide basis in a manner that is consistent with the balance of interests reflected in the Convention. The United States will not, however, acquiesce in unilateral acts of other states designed to restrict the rights and freedoms of the international community in navigation and overflight and other related high seas uses (see Figure III-4). The Code for Unplanned Encounters at Sea document is not legally binding but is an agreement upon which the participating nations have a standardized protocol of safety procedures, basic communications, and basic maneuvering instructions to follow for naval ships and aircraft during unplanned encounters at sea. The United States has a long-standing policy of exercising and asserting its freedom of navigation and overflight rights on a worldwide basis. Challenges of excessive maritime claims of other nations are undertaken both through diplomatic protests by the Department of State and by transit of US Armed Forces. Freedom of navigation operations, in accordance with DOD Instruction S-2005.01, *(U) Freedom of Navigation (FON) Program*, are designed to be politically neutral, as well as non-provocative, and have encouraged nations to amend their claims and bring their practices into conformity with UNCLOS. As DOD's interest in mobility and access is global, US military forces conduct freedom of navigation operations against excessive maritime claims in every region of the world, irrespective of the identity of the coastal state advancing the claims. Although freedom of navigation operations have traditionally employed USN ships and aircraft, other force providers such as USCG for ships, or US Air Force for aircraft may provide appropriate forces for employment in freedom of navigation operations.

(3) The legal classifications ("regimes") of ocean and airspace areas directly affect maritime operations by determining the degree of control that a coastal nation may exercise over the conduct of foreign merchant ships, warships, and aircraft operating within these areas. The nature of these regimes, particularly the extent of coastal nation control exercised in those areas, is set forth in the succeeding paragraphs.

Information on the maritime claims of coastal nations and US position on those claims can be found at http://www.jag.navy.mil/organization/code_10_mcrm.htm.

For additional information on law of the sea matters, see NWP 1-14M/Marine Corps Tactical Publication (MCTP) 11-10B/Commandant Publication P5800.A, The Commander's Handbook on the Law of Naval Operations.

Primary Zones Affecting Navigation and Overflight

- Internal waters are landward of the baseline from which the territorial sea is measured.
- The territorial sea is a belt of ocean that is measured seaward up to 12 nautical miles from the baseline of the coastal nation and subject to its sovereignty. Ships enjoy the right of innocent passage in the territorial sea.
- Innocent passage does not include a right for aircraft overflight of the territorial sea.
- A contiguous zone is an area extending seaward from the baseline up to 24 nautical miles in which the coastal nation may exercise the control necessary to prevent or punish infringement of its customs, fiscal, immigration, and sanitary laws and regulations that occur within its territory or territorial sea. Ships and aircraft enjoy high seas freedoms, including overflight, in the contiguous zone.
- An exclusive economic zone (EEZ) is a resource-related zone adjacent to the territorial sea—where a state has certain sovereign rights (but not sovereignty) and may not extend beyond 200 nautical miles from the baseline. Ships and aircraft enjoy high seas freedoms, including overflight, in the EEZ.
- The high seas include all parts of the ocean seaward of the EEZ.

Figure III-4. Primary Zones Affecting Navigation and Overflight

j. **Unmanned Aircraft System (UAS).** While the C2 processes for UASs are similar to those for manned assets, several characteristics of UASs can make C2 particularly challenging:

(1) UAS communication links are generally more critical than those required for manned systems. In the event of lost communications, a manned aircraft will typically continue the mission or return safely to a home base or alternate field. Although UASs can be programmed to return to base upon loss of communication, they rely on a nearly continuous stream of communications (for flight control and payload) to successfully complete a mission. Therefore, communications security, and specifically bandwidth protection (from friendly interference and threat action), is imperative.

(2) UASs may be capable of transferring control of the aircraft or payloads to multiple operators while airborne. Close coordination amongst all potential operators is required.

(3) Most larger UASs have considerably longer endurance times than comparable manned systems. Commanders and their staffs should exploit this capability when tasking UAS assets.

(4) Compliance with the airspace control order is critical as unmanned aircraft cannot see and avoid other aircraft; generally have small radar and visual signatures; and may not have identification, friend or foe capability.

k. **Cyberspace.** Commander, Fleet Cyber Command (COMFLTCYBERCOM), is the Navy's central operational authority for protection of Navy cyberspace. The Navy

plans and conducts Department of Defense information network (DODIN) operations and defensive cyberspace operations (DCO)-internal defensive measures to ensure networks and systems are protected from threats in cyberspace. DCO consists of those actions designed to defend friendly cyberspace from malicious cyberspace activity. DCO may be conducted in response to an attack or exploitation, including the effects of malware, on the DODIN including the Navy's Consolidated Afloat Networks and Enterprise Services the Navy is directed to defend. The Navy's DCO mission is accomplished using a layered, adaptive, defense in-depth approach, with mutually supporting elements of protection. Offensive cyberspace operations (OCO) can be used to create effects that support the JFMCC when targets have cyberspace vulnerabilities. Requests for OCO missions in support of JFMCC operations are coordinated with the CCMD cyberspace support staff elements.

For additional information on cyberspace operations, see JP 3-12, Cyberspace Operations.

l. **Space Operations.** Within the MOC, the space support working group (SSWG) provides support to all warfare areas, planning teams, and decision forums where space systems and services impact operations. The SSWG coordinates with the space coordinating authority as required and ensures space-based capabilities and vulnerabilities are included in the planning process and that space requirements are integrated into each phase of the JFMCC's OPLANs. The SSWG also provides reachback support for assigned forces. The SSWG is tailored to meet individual MOC mission requirements. COMFLTCYBERCOM is the Navy's central operational authority for space in support of maritime forces afloat and ashore. COMFLTCYBERCOM directs operations of assigned space systems as an integral element of network operations and associated space control activities and provides space expertise, support, products, and services, as required. COMFLTCYBERCOM provides planners and space reach-back for maritime forces and coordinates with other Service space operations organizations, including space operations officers on strike group staffs, joint force maritime component command staffs, or maritime HQ.

For more information on space operations, see JP 3-14, Space Operations.

5. Assessment

a. Assessment is a process that evaluates changes in the OE and measures progress of the joint force toward mission accomplishment. Commanders continuously assess the OE and the progress of operations; compare them to their initial visualization, understanding, and intent; and adjust operations based on this analysis. Staffs monitor key factors that can influence operations and provide the commander timely information needed for decisions. Normally, the plans directorate of a maritime staff coordinates assessment activities. JFCs' staffs may organize assessment under a special staff section, a distinct directorate, or within an existing staff organization. Various elements of the JFC's staff use assessment results to adjust both current operations and future planning. They are supported by a cross-functional assessment working group in the MOC. Within the MOC, the assessment cell hosts assessment battle rhythm events and develops assessment products. An assessment cell is a small, permanent cell with the primary duty to develop the operational assessment framework during planning and then assess it during execution. The assessment cell is assisted by an assessment working group, which is augmented by personnel from the core

joint staff areas (e.g., intelligence, logistics) and other functional sections (e.g., fires, staff judge advocate, public affairs) as required. The assessment cell may also include nonmilitary personnel as appropriate to provide the necessary input and analysis assistance regarding diplomatic, political, military, economic, social, information, and infrastructure systems within the OE.

b. Assessment representatives should be active participants in operational planning teams to develop and refine effects for MOEs and MOPs; identify critical indicators related to decision and decisive points; and develop an assessment framework to collect, analyze, and assess indicators, providing the progress of the operation.

c. The assessment cell develops the assessment data collection plan in concert with the JFMCC's assessment working group. This plan includes locally produced products that help to organize incoming data for analysis based on information requirements and coordination instructions for conducting evaluations in concert with other staff organizations. The assessment cell provides assessment information to support J-3 and J-5 [plans directorate of a joint staff] planning efforts and recommendations on whether to proceed on course with the current plan or adjust the plan based on execution to date.

d. The assessment process is used to plan, gather, analyze, and interpret MOE data, assessment information from the JFC's staff, other component and staff assessments, subordinate and supporting force inputs, and current operations to determine impact on the CONOPS, compliance with commander's intent, and progress on achieving objectives. The assessment cell establishes and updates the assessment picture to create a shared situational awareness among the staff, subordinates, and other components. These assessments support decision making through established battle rhythm events, such as the commander's update brief or commander's assessment brief, and make planning recommendations based on operational trends in risk or opportunity. Assessment efforts are continuous and integrated throughout MOC activities.

e. The JFMCC's assessment cell should analyze the JFC's desired effects and objectives, develop MOEs and MOPs that are relevant to the JFMCC's desired objectives, ask for clarifications if necessary, and integrate assessment measures and collection requirements into the OPLAN, CONOPS, or OPORD. The assessment cell ensures any JFMCC's MOEs and MOE indicators are consistent with, and not contrary to, the JFC's desired effects and objectives.

f. Throughout planning and execution, the assessment cell should be prepared to identify new, desired, or undesired effects. By the time the commander has approved a COA, the assessment cell should have developed tentative MOEs, vetted them through subordinate elements, and addressed and mitigated any inconsistencies. Once the effects, measures, and indicators have been finalized, they should be compared to current CONOPS, CCIRs, and any developed decision support matrices to ensure they are consistent with critical information requirements and anticipated decisions.

For additional information on assessment see, JP 5-0, Joint Planning.

MARITIME ASSESSMENT EXAMPLES

Objectives/Effects

Objective 1: Maritime safety and security in the joint operations area (JOA)

Effect 1.1: Regional threats do not impede freedom of navigation in the JOA

Measure of Effectiveness (MOE) 1.1.1: Increase/decrease in regional threat maritime presence

MOE indicator 1.1.1.1: Number of hostile ships preparing to get under way

MOE indicator 1.1.1.2: Number of hostile ships under way

MOE 1.1.2: Increase/decrease in engagements with hostile ships

MOE indicator 1.1.2.1: Number of engagements where hostile ships close to X nautical miles (nms) of coalition ships

MOE indicator 1.1.2.2: Number of engagements where hostile aircraft close to X nms of coalition ships

MOE indicator 1.1.2.3: Number of radars active with coalition ships within X nms

6. Multinational Participation

In a multinational environment, the operational aim for maritime forces is to exercise sea control; project power ashore; synchronize maritime operations with operations throughout the maritime operational area; and support the MNFC's CONOPS, intent, and guidance in accomplishing the multinational TF mission. Maritime forces are primarily navies; however, they may include landing forces, maritime-focused air forces, amphibious forces, or other forces charged with sovereignty, security, or constabulary functions at sea that may have the ability to rapidly transition between types of operations. As with land forces, command of maritime operations will normally be assigned to a multinational force maritime component commander (MNFMCC) or a designated CTF. The MNFC will typically assign a maritime AO to the MNFMCC or naval CTF, based upon the CONOPS. The MNFC will also establish, as required, supported and supporting relationships to assist in prioritizing actions, assist in establishing the main effort, and establish formal command/coordination channels between the components for a specific operation/mission or phase. A key aspect of maritime operations will be sustainability. The following factors will impact the sustainability of maritime operations: available surface combatants and amphibious warfare ships, available submarine assets, maintenance supply, and storage facilities.

For more information on multinational operations, see JP 3-16, Multinational Operations

CHAPTER IV
COMMAND AND CONTROL AND OTHER OPERATIONAL-LEVEL CONSIDERATIONS FOR SPECIFIC MARITIME OPERATIONS

"In fulfilling our mission, it's important to start with an assessment of the security environment. It is tempting to define the challenge solely in terms of our allies, partners, and competitors - the state and non-state actors on the world stage. While these are critical, it is even more important to understand the dramatic changes that have taken place on the stage itself - the character of the environment in which competition and cooperation occur. Fundamentally, the world has become dramatically more globalized, and this trend is accelerating. Our way ahead must account for this new reality."

A Design for Maintaining Maritime Superiority
January 2016

1. General

a. While this chapter is not intended as a primer on the conduct of specific maritime operations, due to the complexities of the OE and the required integration and coordination between elements of the joint force, a discussion of selected aspects of specific maritime operations is deemed essential to foster understanding and enhance unified action. The following provides a common baseline for all elements of the joint force to better enable joint planning and facilitate effective joint maritime operations.

b. The USN's traditional and doctrinal warfighting configuration is the fleet, commanded by a numbered fleet commander. Typically, the fleet commander task-organizes assigned and attached forces using the Navy's administrative organization as its foundation. This is a historical organizational framework from which extensive warfare doctrine flows. (See Figure IV-1.)

c. The JFMCC may create subordinate TFs, who may in turn create further subordinate organizations. In each case, the establishing authority must designate the command authorities for each subordinate organization, to include support relationships as required. Although the CTF is normally the CWC, the CTF can designate a subordinate commander to be the CWC. CTFs will typically assign forces under TACON to subordinate commanders. A CTF who has OPCON can designate a support command authority between two or more subordinate force commanders.

d. Although a CWC and subordinate warfare and functional group commanders can be assigned in many different ways, for ease of discussion this publication will use composite warfare in the typical context of a strike group comprising multiple varied and multi-mission platforms.

2. Surface Warfare

a. SUW encompasses operations conducted to destroy or neutralize enemy naval surface forces and merchant vessels. These operations typically include the planning and

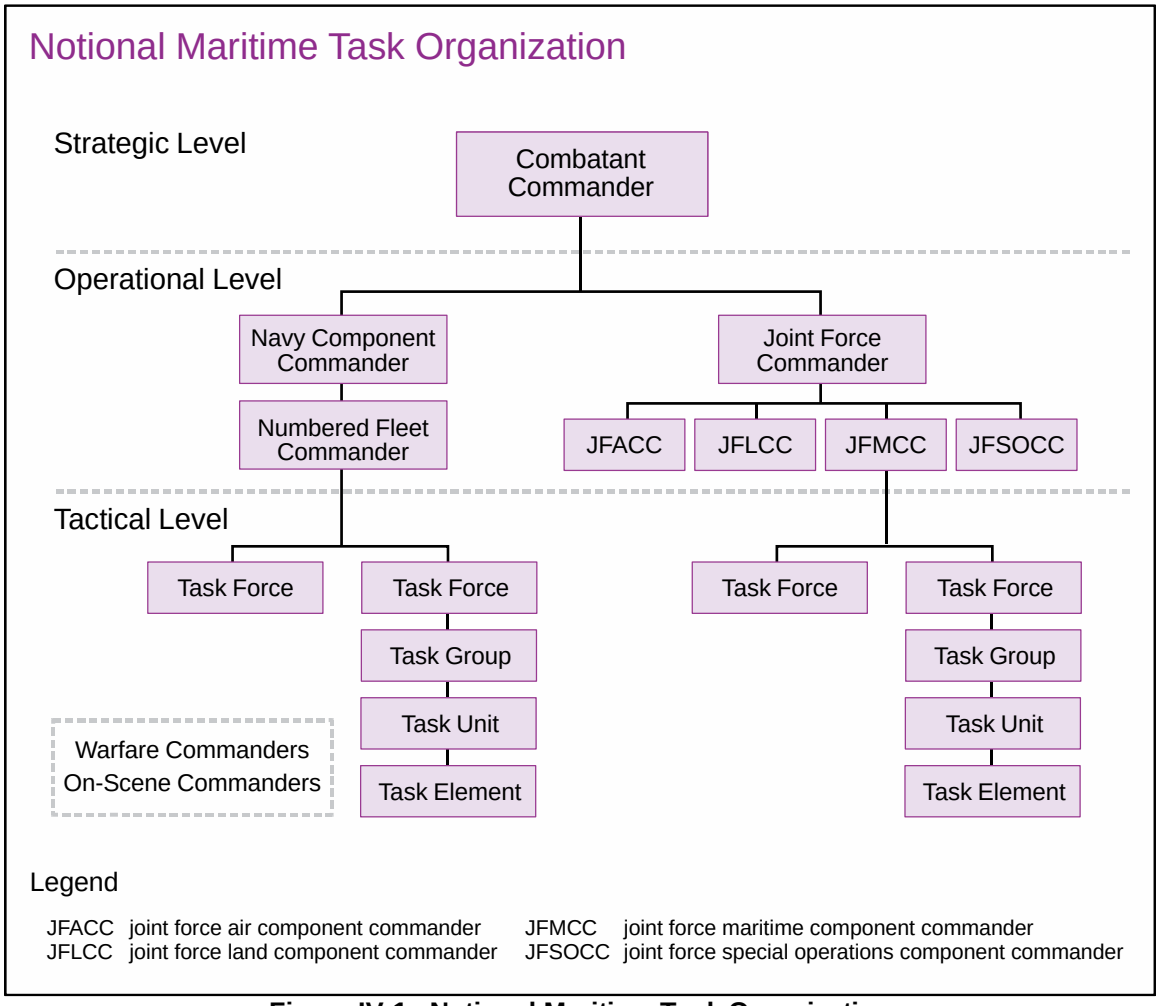


Figure IV-1. Notional Maritime Task Organization

directing of surveillance of the maritime domain, interdiction, and strikes by aircraft and missiles. To facilitate management and promote common understanding, standard terminology and definitions are used to describe important areas in the maritime AO. The areas described in Figure IV-2 should be clearly delineated in SUW plans, boundaries defined, and specific preplanned responses designated to occur when contacts are present. These designated areas should appear on the COP at tactical and operational levels. JFMCC allocation of capabilities between TFs, assignment of TF responsibilities, maneuver areas, and specific tasking will significantly affect planning for placement of these areas and SUW planning in general.

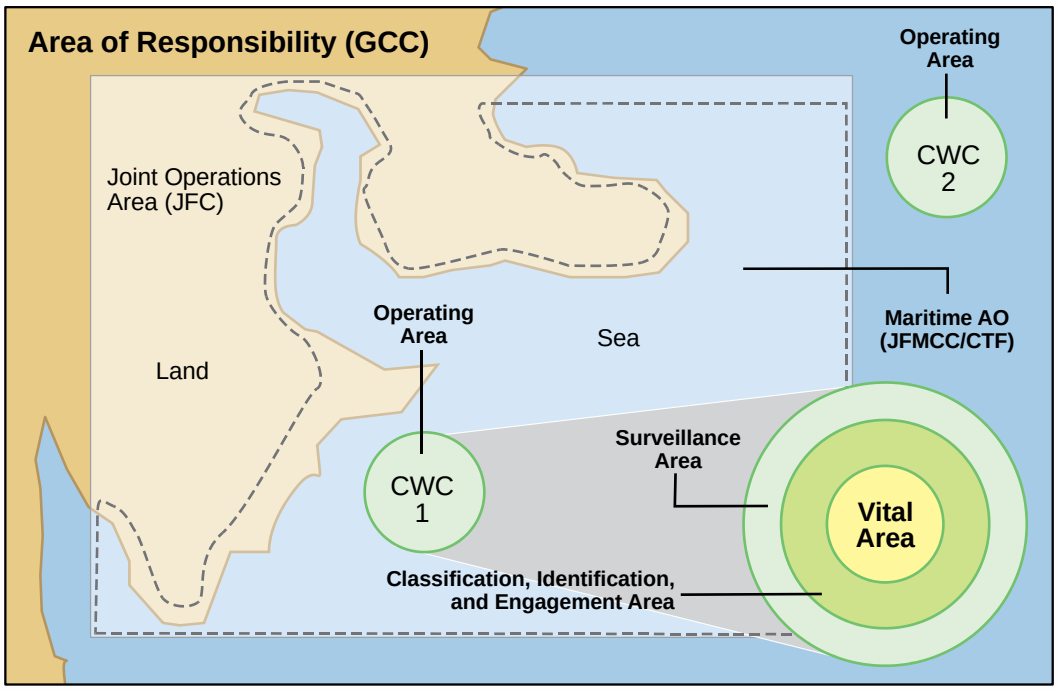
b. Effective sensor and combat systems management includes:

(1) Proper modes for sensors and weapons systems;

(2) Rapid target designation and assignment of targets to weapons systems;

(3) Use of standard commands and procedures;

Composite Warfare Commander Integration within the Joint Operations Area



Legend

AO	area of operations	GCC	geographic combatant commander
CTF	commander, task force	JFC	joint force commander
CWC	composite warfare commander	JFMCC	joint force maritime component commander

Figure IV-2. Composite Warfare Commander Integration within the Joint Operations Area

(4) Ability to launch one's own weapon first and then exploit the tactical advantage gained as the opponent is forced into a defensive posture (subject to rules of engagement [ROE]);

(5) Employment of sensors to support battle damage assessment, reattack as necessary;

(6) Designation of a backup system (if available) for each engagement to achieve a higher probability of kill; and

(7) Consideration of employment of weapons as well as maneuver for defensive countermeasures.

c. **Tactical-Level SUW C2.** SUW is conducted by the SUWC. The SUWC is responsible for defense of the strike group against surface threats. The SUWC typically will:

Surveillance area—In surface warfare, the operational environment that equals the force's ability to conduct a systematic observation of a surface area using all available and practical means to detect any vessel of possible military concern. The dimensions of the surveillance area are a function of strike group surveillance capabilities, sensors, and available theater and national assets.

Classification, identification, and engagement area (CIEA). In maritime operations, the area within the surveillance area and surrounding the vital area(s) in which all objects detected must be classified, identified, and monitored; and the capability maintained to escort, cover, or engage. The goal is not to destroy all contacts in the CIEA, but rather to make decisions about actions necessary to mitigate the risk that the contact poses. The CIEA typically extends from the outer edge of the vital area (VA) to the outer edge of where surface forces effectively monitor the operational environment. It is a function of friendly force assets/capabilities and reaction time, threat speed, the warfare commander's desired decision time, and the size of the VA.

VA. A designated area or installation to be defended by air defense units. The VA typically extends from the center of a defended asset to a distance equal to or greater than the expected threat's weapons release range. The intent is to engage legitimate threats prior to them breaching the perimeter of the VA. The size of the VA is strictly a function of the anticipated threat. In some operating environments, such as the littorals, engaging threats prior to their breaching the VA is not possible because operations are required within the weapons release range of potential threats. Preplanned responses should include measures for when contacts are initially detected within the VA.

Note: Potential exists for multiple organizations conducting operations within a joint force maritime component commander's (JFMCC's) area of operations. To ensure unity of command and unity of effort the JFMCC should ensure common processes and procedures exist for the shifting of tracking across organizational seams.

Navy Warfare Publication 3-56, *Composite Warfare: Maritime Operations at the Tactical Level of War*

(1) Exercise TACON of assigned SUW units, including stationing, maneuvering, and engagement.

(2) Identify requirements for SUW air support to CWC.

(3) Establish joining and control procedures for SUW aircraft keeping the AMDC and appropriate airspace control agencies informed, in accordance with the AMDC's directives.

(4) Order organic strike group aircraft launch and tasking to counter hostile surface contacts.

d. The SUWC directs force action against surface threats for the CWC. This includes actions to direct surface surveillance coordination, armed reconnaissance/strike coordination and reconnaissance, war-at-sea strike, counter-fast attack craft/fast inshore attack craft, and airborne maritime mining missions within the CIEA. The SUWC collects, evaluates, and disseminates SUW surveillance information and plans, directs, monitors, and assesses the employment of SUW resources.

For more information on these missions, see Army Techniques Publication (ATP) 3-04.18/Marine Corps Reference Publication (MCRP) 3-20.2/NTTP 3-20.8/Air Force Tactics, Techniques, and Procedures (AFTTP) 3-2.74, Multi-Service Tactics, Techniques, and Procedures for Air Operations in Maritime Surface Warfare.

e. Typically the SUWC will be embarked in a CVN [aircraft carrier, nuclear], LHA [amphibious assault ship {general purpose}], LHD [amphibious assault ship {multipurpose}] or, if possible, in a ship equipped with a robust Global Command and Control System-Maritime and cryptologic capabilities to facilitate surface contact management. With SUW expertise and experience, a destroyer squadron commander will normally be assigned duties as the SUWC for a CSG. Typically, there is not a destroyer squadron staff assigned to an ARG; therefore, SUWC duties will usually be assigned to the amphibious squadron commander or the commanding officer of the amphibious commander's flagship. The SUWC's staff should be augmented by aviation community representatives, including attack, airborne early warning, ship-based SUW helicopter, and land-based maritime patrol personnel.

3. Air and Missile Defense

a. For joint maritime operations, countering air and missile threats consists of a combination of theater counterair and IAMD. Counterair is the foundational framework at the theater level. IAMD synchronizes aspects of counterair with global missile defense, homeland defense (HD), and global strike.

b. At the theater level, the JFC determines the most appropriate command relationships for the component forces made available for the counterair mission. When the JFC organizes the joint force, in addition to a JFACC, the JFC also normally designates an area air defense commander (AADC) (for defensive counterair [DCA]) and an ACA (for joint airspace control). Normally, the JFC designates the same individual as the JFACC, AADC, and ACA, because the three functions are so integral to one another. However, if the situation dictates, the JFC may designate an AADC and/or ACA separate from the JFACC. In that case, the JFC must clearly establish the command relationships of the JFC and the JFACC to the AADC and the ACA.

(1) The JFC designates an AADC with the authority to plan, coordinate, and integrate overall joint force DCA operations. The AADC is normally the component commander with the preponderance of AMD capability and the C2 and intelligence capability to plan, coordinate, and execute theater AMD operations, including real-time battle management.

(2) The JFC will define the command relationships between the AADC and joint force component commanders. Components will provide representatives, as appropriate, to the AADC's HQ to provide both specific weapon systems expertise and broader mission expertise.

(3) Regardless of the command relationship, all counterair forces are subject to the ROE, airspace control, weapons control measures, and fire control orders established by the JFACC, AADC, or ACA as approved by the JFC. Additionally, the AADC will be granted the necessary command authority to deconflict and control engagements and to exercise real-time battle management.

c. The maritime force benefits from and contributes to the joint area air defense plan (AADP) using shore-based and organic airborne early warning, fighter aircraft, ships armed with surface-to-air missiles, and electronic warfare systems. The inner layer of defense for a maritime force is provided by a combination of point defense missiles, close-in weapons systems, and electronic countermeasures. The JFC, JFMCC, and other component commanders should plan and document preauthorized response actions and delegated command functions to enable tactical force commander execution of decentralized operations in the manner expected. The JFC determines the most appropriate command relationships for the component forces made available for counterair.

d. For AMD, engagement zones are often established. The zones' designations include who has authority to engage threats and dimensions based upon the capabilities of organic assets. Maritime forces are mobile and usually employ a moving missile engagement zone (MEZ) with separate operational areas for air operations. In a littoral environment, amphibious operations may encompass a portion of the land AO and function as an MEZ. In this case, maritime combatants may be restricted by geography when defending selected coastal assets. Linking land-based, surface-to-air missile systems with maritime force generated search and fire control data and vice versa can result in improved ability to defend the littoral areas.

For more information on engagement zones, in addition to other AMD threats, see JP 3-01, Countering Air and Missile Threats.

e. When the NCC is designated as the JFMCC, the JFMCC exercises OPCON of NAVFOR, to include the multi-mission BMD ships. The JFMCC may retain command of multi-mission ships with BMD capability or transfer OPCON or TACON of the ships to a subordinate CTF. Typically, the CTF integrates AMD when designated. Figure IV-3 contains examples of BMD command functions a JFMCC, in coordination with the JFACC/AADC, may assign to a CTF.

f. In the case of maritime AD regions, the JFMCC may recommend establishing a regional air defense commander (RADC) and a person to fill this position, normally a CTF, to the JFC via the AADC.

g. The AADC, as the supported commander for BMD operations, receives support from other components. The JFMCC operating in support of the AADC for BMD activities

Examples of Maritime Ballistic Missile Defense Command Functions

- Assisting with integration of force ballistic missile defense (BMD) plans into the joint force maritime component commander's (JFMCC's) operation plan and, when necessary, providing specific guidance to the force.
- Assisting JFMCC formulation of guidance for BMD planned responses.
- Coordinating and controlling use of maritime BMD sensors.
- Controlling BMD nets, especially with respect to procedural integrity and security in reporting communication security.
- Coordinating and controlling employment of maritime force BMD weapons.
- Defining requirements for protection of multi-mission ships with BMD capability.
- Directing and controlling BMD actions of forces assigned.
- Disseminating criteria for weapon release and expenditure (a matrix if applicable).
- Establishing of JFMCC plans, policies, priorities, and overall requirements for BMD intelligence, surveillance, and reconnaissance activities.
- Exercising command by negation over all BMD actions initiated by other units of the force.
- Exercising tactical control, including stationing and maneuvering of assigned multimission ships with BMD capability, in accordance with the JFMCC's policies and plans.
- Identifying requirements for nonorganic BMD support to the JFMCC.
- Planning and coordinating BMD actions of forces assigned to the JFMCC.
- Recommending BMD degrees of readiness to the JFMCC (note JFMCC cannot set degree of readiness lower than that established by the area air defense commander).
- Supporting the task force commander designated by the JFMCC to coordinate integrated air and missile defense operations, or if not assigned, direct liaison with the area and regional air defense commander.

Figure IV-3. Examples of Maritime Ballistic Missile Defense Command Functions

prepares maritime BMD-capable forces for possible requests for JFMCC support. Figure IV-4 is a visual representation of how a JFC and JFMCC may delegate command relationships and assign command functions for the achievement of BMD mission operational objectives.

h. **BMD Operations.** Each CCDR is responsible for BMD in their AOR. While the CCDR of the targeted AOR is normally the supported commander, Commander, United States Strategic Command, synchronizes planning for global missile defense and will do so in coordination with other CCDRs, the Services, and as directed, appropriate United States Government (USG) departments and agencies. Synchronizing and coordination responsibilities, however, do not include authority to execute or direct operations for cross-AOR BMD operations. Command relationships between CCDRs for cross-AOR BMD that address specific AOR threats, international agreements, and partner-nation support

Notional Ballistic Missile Defense Command Relationships and Functions

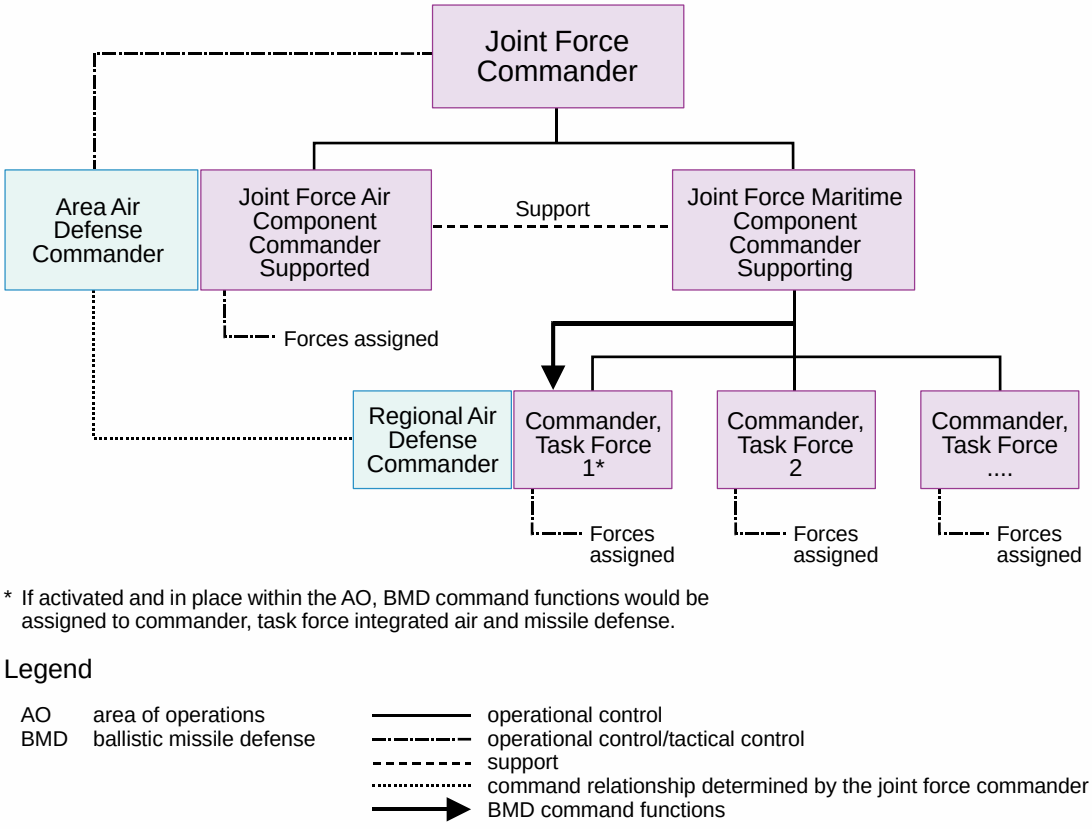


Figure IV-4. Notional Ballistic Missile Defense Command Relationships and Functions

requirements are defined by the Secretary of Defense. The JFC's plan should discuss the CCDR's support command relationship for the AOR. JFMCC assets that are BMD capable may be tasked to support this effort.

i. **Maritime AMD C2.** The MOC's IAMD cell serves as the JFMCC's primary planning and execution coordination conduit with higher HQ, other Service components (e.g., the AOC and US Army Air and Missile Defense Command), subordinate forces, and outside support agencies for IAMD requirements. If a subordinate TF commander is designated as an RADC, the MOC's IAMD cell assists with coordination. The IAMD cell supports the development of the AADP and provides subordinate AMD planners a conduit for providing recommendations and adjustments to the plan.

(1) The JFMCC normally delegates TACON of AMD ships and assigns planning and command functions to the TF commander who has the preponderance of AMD ships. If activated and in place within the operational area, these functions may be assigned to a commander, task force integrated air and missile defense (CTF IAMD). CTF IAMD provides a standardized C2 layer between the numbered fleet commander and subordinate maritime commanders focused on tactical-level missions.

(2) The USN employs the CWC doctrine for tactical AMD. The CWC's AMDC coordinates with the IAMD cell/CTF IAMD to integrate maritime forces seamlessly in the execution of the AADP. Depending on the threat and available forces, the AMDC's BMD tasks may be delegated to a separate BMD commander under the CWC. The MOC IAMD cell/CTF IAMD plans AMD for ships operating independently and not covered by a CWC structure.

j. The CWC's AMDC defends the force against air and ballistic missile threats unless a separate BMD commander is designated. The AMDC collects, evaluates, and disseminates AMD surveillance information to the CWC and the force and also plans, directs, monitors, and assesses the employment of AMD resources. The AMDC:

(1) Recommends RADC/sector AD commander assignments to the CWC for submission to/approval by the OTC or JFMCC for follow-on submission to AADC for JFC approval.

(2) Exercises TACON, including stationing and maneuvering of assigned surface AMD-capable units.

(3) Exercises command by negation over all AMD actions initiated by other units of the force.

(4) Coordinates and orders the launch and station of alert AMD aircraft.

(5) Coordinates movements of friendly aircraft within the air surveillance area in cooperation with the ACA.

(6) Establishes joining procedures for aircraft assigned DCA missions.

(7) Assigns stations, sectors, and/or patrolling areas, and designates air control units for aircraft assigned DCA missions, keeping the ACA informed.

(8) In coordination with the ACA, establishes and promulgates the identification safety range and safety sectors for all friendly aircraft and any special areas or zones established for aircraft safety and identification, or to prevent mutual interference.

k. The AMDC should be supported by a command center capable of providing sufficient tactical awareness to manage AMD for the force. The AMDC should normally be assigned on the most capable or experienced AMD ship that provides this level of support. The alternate AMDC is assigned to a second AMD ship's commanding officer not already assigned warfare or functional group command responsibilities. Any component liaison officers (LNOs) required, such as an Army AD artillery fire control officer, would normally embark on the same ship as the AMDC.

l. AD also includes systems to counter UASs. To effectively counter UASs, the airspace control plan and AADP should include detailed procedures for threat unmanned aircraft detection, identification, and engagement. With the proliferation of small UASs by both joint and multinational forces, many of which do not have identification, friend or

foe capability and are similar or identical to threat UASs, the airspace control plan should include specific procedural control and coordination measures for control and/or deconfliction of friendly UASs. Engagement of unmanned aircraft by traditional AD capabilities may be problematic due to their small size and slow speed.

For additional information on countering UASs, see ATP 3-01.15/MCTP 10-10B/NTTP 3-01.8/AFTTP 3-2.31, Multi-Service Tactics, Techniques, and Procedures for an Integrated Air Defense System.

For additional information regarding countering air and missile threats, see JP 3-01, Countering Air and Missile Threats.

4. Antisubmarine Warfare

a. Undersea warfare (USW) operations are conducted to establish dominance in the undersea portion of the maritime operational area, which permits friendly forces to operate throughout the maritime operational area and denies an opposing force the effective use of underwater systems and weapons. USW includes offensive and defensive submarine, ASW, and mine warfare (MIW) operations.

b. Control of the undersea portion of the operational area is vital to the success of joint operations. A principal threat comes from enemy submarines. A single unlocated submarine could create a significant operational, diplomatic, or economic impact. To counter this threat, the JFC will coordinate, and when required, integrate assets from the joint force to conduct ASW during all phases of the joint operation or campaign. ASW is an operation conducted with the intention of denying the enemy the effective use of submarines.

c. Although often viewed as a Navy-only mission, the JFMCC may utilize a variety of joint forces and combined forces and capabilities (air, land, maritime, space, cyberspace, and special operations) to facilitate or conduct ASW. In particular, given the nature of the operating environment; the size of the area to be covered; and the mission to find, fix, track, target, and if required, engage enemy submarines, the use of persistent national and joint intelligence collection platforms is one of the essential resources to ASW mission accomplishment. For example, tasks to monitor, track, and engage enemy submarines in port or transiting on the ocean surface may be effectively accomplished by non-Navy aircraft, UASs, broad-area maritime surveillance, or other joint assets.

d. While the JFC conducts ASW planning inside the JOA, coordination of ASW plans and activities with commands outside the JOA will be essential and may require close coordination with other government departments and agencies, multinational partners, and HNs.

e. ASW missions are typically centrally planned under the direction of the JFMCC or an NCC and executed in a decentralized manner in support of the JFC's CONOPS. ASW is extremely complex, requiring the coordination and integration of multiple platforms and systems to mitigate the risks posed by enemy submarines. ASW planning should include

consideration of the submarine threat, OE, force planning, intelligence collection, communications systems, and C2.

f. Because it is difficult to detect and track submarines operating underwater, a thorough understanding of the OE is a key tenet of success. Intelligence efforts should focus on the physical attributes of specific enemy platforms, their supporting physical and C2 infrastructure, and past and anticipated employment patterns. Only after a thorough analysis of the physical environment and enemy systems, will planners be able to develop the CONOPS properly.

g. The physical characteristics of the maritime operational area have a significant impact on ASW execution. The highly variable acoustic properties of the underwater environment will impact the ability to detect, identify, track, and engage enemy submarines. Factors that may affect these properties include surface shipping (including that of the joint force and commercial shipping), inherent environmental noise and oceanographic properties, and seasonal weather patterns. Acoustic sensor placement will be highly dependent on the acoustic properties of the waterspace. Acoustics may not be the sole detection capability; hence, an environmental assessment will be required to identify the requirements for non-acoustic detection systems (such as satellite imagery).

h. Maritime forces must be identified early to account for long transit times. Initial force planning considerations should include utilization of pre-positioned capabilities, early deployment of surface and subsurface forces, and reassignment of forward-deployed forces to the ASW operation. Early presence of joint forces may be essential in seizing the initiative.

i. The objective of ASW operations is to assist in the establishment or maintenance of maritime superiority by denying enemy submarine influence in the operational area. This is accomplished through actions to detect, identify, track, and engage enemy submarines. Un-located enemy submarines often have the most influence in the JOA, possibly affecting fleet maneuver and commercial shipping operations. The JFC should designate enemy submarines as TSTs and develop and implement a comprehensive plan to reduce this threat. The operational key is to establish areas for operations where enemy submarines will be unable to threaten key assets.

j. ASW efforts focused on enemy bases and littoral chokepoints can prevent enemy submarines from entering open ocean areas and deny them much of the maritime environment. Neutralizing enemy submarines prior to getting underway, by planned targeting of enemy naval facilities and disrupting critical infrastructure supporting submarine operations, is the most effective defense against the enemy submarine threat. Dynamic targeting of enemy submarines may also be possible when the enemy submarine remains on the surface. However, if permitted to enter open ocean areas and submerge, the level of effort required to neutralize the submarine threat increases significantly.

k. Protection of surface units or commercial shipping may require ASW emphasis near operating areas, SLOCs, chokepoints, friendly and neutral ports, or other critical areas.

l. Detection of submarines can have a significant impact on maritime operations. Even if engagement of enemy submarines is prevented by ROE or other considerations, the ability to track enemy submarine movement will shrink the area of influence to the known location of the submarine. The integration of intelligence and operations is essential to the conduct of ASW.

m. Sensor employment should be thoroughly analyzed and carefully integrated into the CONOPS. Planners must take into consideration the acoustic properties of the operating environment. Sensor platforms should be placed to optimize sensor performance while minimizing the threat to the sensor platform. Acoustics are not the sole detection and tracking mechanism. Intelligence collection planning should emphasize that all joint sensors, including those not historically associated with ASW, may provide information for application at the operational and tactical levels of warfare.

n. Intelligence, surveillance, and reconnaissance visualization through a COP will maximize MDA and enhance ASW execution. Care must be taken, however, to ensure the uncertainty inherent in ASW operations is taken into consideration; distinction must be made between suspected location of un-located submarines and known submarine positions.

o. **Theater Antisubmarine Warfare Commander (TASWC).** The TASWC is the commander assigned to develop plans and direct assigned assets to conduct ASW within the CCDR's AOR. Theater ASW employs available in-theater ASW assets (national and combined forces) to track potential submarine threats. Strike groups must coordinate transit routes and operating areas with the TASWC to provide maximum protection for high-value and mission-essential units. The TASWC may exercise either OPCON or TACON of assigned and attached assets. When tasked to support a JFC during an operation, the TASWC is established and designated as a CTF or TG commander by the JFMCC. The TASWC conducts ASW operations as permitted by ROE. The TASWC coordinates ASW with commanders inside and outside the JOA for the JFMCC/NCC. The JFMCC or NCC may assign forces directly to the TASWC. The TASWC also directly supports other maritime commanders (i.e., strike group commanders) in the conduct of tactical ASW and typically provides ASW support to afloat forces as they transit through or operate in the AOR. The TASWC should promulgate the WSM and PMI elements in effect. As changes to elements of WSM and PMI are promulgated by the submarine operating authority (SUBOPAUTH), the TASWC should promptly disseminate that information to the force. The TASWC and SUBOPAUTH closely coordinate submarine operations, to include WSM and PMI issues. In some cases, the TASWC exercises theater ASW and SUBOPAUTH responsibilities. They should maintain direct liaison with the joint intelligence center. Successful ASW prosecution requires fusing intelligence, oceanographic data, surveillance, cueing, multiple sensors, sensor technologies, and coordination between multiple platforms and staffs. Joint and national intelligence collection capabilities must be incorporated into this process.

p. **SUBOPAUTH.** The SUBOPAUTH is the Navy commander appointed by the NCC to ensure safety and PMI, provide WSM, and control the submarine broadcast for assigned submarines within a designated operational area. The SUBOPAUTH may

exercise either OPCON or TACON of assigned and attached assets. Within their operational area, SUBOPAUTHs employ WSM to permit the rapid and effective engagement of hostile submarines while preventing inadvertent attacks on friendly submarines. Similar to fire-support coordination measures on land, WSM may facilitate reducing or eliminating coordination requirements for the engagement of undersea targets or impose requirements for specific coordination before engagement of targets. Along with other control measures, WSM and associated procedures help ensure surface and air fires do not jeopardize submarine safety or interfere with other attack means. PMI is waterspace allocation and procedures designed to prevent submerged collision between friendly submarines, between submarines and friendly surface ships' towed bodies, between unmanned underwater vehicles and other bodies, and between submarines and any other underwater event.

q. **Tactical-Level ASW C2.** The ASWC defends the force against submarine threats. The ASWC is normally authorized direct liaison with the SUBOPAUTH and TASWC for the purposes of sharing ASW information and coordination. The ASWC collects, evaluates, and disseminates antisubmarine surveillance information to the CWC and the force and also plans, directs, monitors, and assesses the employment of antisubmarine resources. The ASWC:

(1) Exercises TACON of assigned surface ASW units and aircraft whose primary mission is ASW, including stationing, maneuvering, and contact prosecution.

(2) Identifies requirements for nonorganic ASW air support to CWC. Establishes the requirements for organic ASW air support.

(3) Provides WSM recommendations to CWC.

(4) Issues specific instructions to all friendly units to prevent mutual interference between submarines in support, towed array surface ships, and all other friendly units.

(5) Orders the launch and employment of alert aircraft to counter the submarine threat.

(6) Implements the underwater acoustic part of the emission control plan.

(7) Coordinates and controls employment of subsurface surveillance.

(8) Promulgate plans to conduct acoustic deception.

r. The ASW command center should support temporary installation of acoustic and non-acoustic sensor performance prediction systems tailored to reinforce ASW search operations. The most capable platform or staff may be assigned the role as the ASWC. Typically, a destroyer squadron commodore embarked on the OTC's flagship is the ASWC. The ASWC's staff is augmented with representatives of the fixed-wing and rotary-wing ASW communities and naval oceanographic analysis team personnel. When ASW is assigned as the primary mission of submarines operating with a naval force, and if the ASWC is also designated as submarine operations coordination authority, a qualified

submarine officer may be assigned to the ASWC to act as submarine element coordinator to achieve required coordination.

s. The alternate ASWC should also be assigned to a destroyer squadron commodore if one is available (e.g., dual carrier operations). If one is not available, an ASW ship's commanding officer not already assigned warfare or functional group command responsibilities should be assigned as the alternate ASWC. Similar criteria as those discussed for the ASWC should be used when selecting the alternate ASWC.

5. Mine Warfare

a. Maritime MIW is divided into two basic subdivisions: the laying of mines to degrade the enemy's capabilities to wage warfare and the countering of enemy-laid mines to permit friendly maneuver.

b. Maritime MIW is one aspect of a coordinated naval, and most likely, joint campaign. MIW identifies engagement opportunities that should be considered by joint planners to employ friendly mining capability, preclude adversaries from effectively employing maritime mining, and defeat the minefield. Actions taken by other elements of the joint force may have significant impact on the planning and execution of MIW. Mine countermeasures (MCM) operations, for example, are likely to include the use of helicopters and unmanned aircraft, requiring coordination with the JFACC. If conducted in a hostile or uncertain OE, MCM ships and aircraft will require FP, and enemy assets capable of impeding the MCM effort will need to be addressed as part of the joint targeting process. MIW operations must be carefully coordinated with the other component commanders.

c. Maritime mining is used to support the broad tasks to establish and maintain control of essential sea areas. Mines may be employed either offensively or defensively to restrict the movement of surface ships and submarines. They can be used alone to deny free access to ports, harbors, and rivers, as well as movement through SLOCs. Sea mines can also be used as a force multiplier to augment other military assets and reduce the surface and submarine threat. Mining is generally conducted by US Air Force bomber or USN strike aircraft. Submarines and surface ships can also be configured to emplace mines.

d. MCM include all actions undertaken to prevent enemy mines from altering friendly forces' maritime plans, operations, or maneuver. MCM reduce the threat and effects of enemy-laid sea mines on friendly naval force and seaborne logistic force access to and transit of selected waterways. MCM operations are divided into two broad areas: offensive and defensive MCM.

(1) **Offensive MCM.** The most effective means for countering a mine threat is to prevent the laying of mines, a problem that may require cross-component coordination across the joint force. Offensive MCM destroy enemy mine manufacturing and storage facilities or mine laying platforms before the mines are laid. Although an adjunct of MIW, these operations are not normally conducted by MIW forces. Therefore, staff MCM

planners nominate enemy mine layer, mine storage and, ultimately, mine production facilities and assets up through the JFMCC targeting group for inclusion on joint target lists.

(2) **Defensive MCM.** Defensive countermeasures are designed to counter mines once they have been laid. Some measures are undertaken following the termination of conflict solely to eliminate or reduce the threat to shipping posed by residual sea mines. However, most defensive MCM operations are undertaken during conflict to support (enable) other maritime operations. Defensive MCM includes passive and active MCM.

(a) Passive MCM reduce the threat from emplaced mines without physically attacking the mine itself through reduction of ship susceptibility to mine actuation. Three primary passive measures are practiced: localization of the threat, detection and avoidance of the minefield, and risk reduction.

1. Threat localization engenders establishment of a transit-route system, referred to as Q-routes, which all ships will use to minimize exposure in potentially mined waters. Establishing transit routes should be one of the first steps taken by MCM planners, if the routes have not been previously designated, to minimize exposure of shipping and permit concentration of active MCM efforts. Minehunting and minesweeping are time-consuming operations performed by forces (ships and helicopters) that require localized air and maritime superiority in which to operate. The JFC may need to allocate significant maritime and air forces to protect the MCM force and prevent the enemy from re-seeding areas already cleared of mines.

2. Detection and avoidance of minefields can be accomplished by exploiting intelligence information or organic MCM forces. When the location has been established, shipping may be routed around the area.

3. Risk reduction is primarily practiced by individual ships rather than planned and executed by MCM forces. Risk may be reduced by controlling the degree of potential interaction with a mine sensor. Against contact mines, a reduction in draft and posting additional lookouts can reduce the number of mines with which the ship's hull might strike. Influence mines can be denied the required activation signals by controlling the ship's emissions. Use of on-board magnetic field reduction equipment or external degaussing, silencing a ship to minimize radiated noise, or using minimum speeds to reduce pressure signature are examples of operational risk reduction. Other types of risk reduction involve the enhancement of ship survivability in the event of mine detonation.

(b) Active MCM are applied when passive measures alone cannot protect traffic. This entails physical interference with the explosive functioning of the mine or actually destroying it. Minehunting and minesweeping are the primary techniques employed in active MCM. Both require detailed intelligence and extensive planning by the mine countermeasures commander (MCMC) to counter the threat effectively.

e. Planning and execution of MIW operations, both MCM and mining, require detailed subject matter expertise. For most operations requiring dedicated MCM assets,

Commander, Naval Surface and Mine Warfighting Development Center, one of the three MCM squadron commanders, or one of the forward-based mine division commanding officers, will act as the MCMC. For small-scale operations or those operations employing a single type of MCM asset, the commanding officer or officer in charge from an airborne MCM squadron, explosive ordnance disposal (EOD) mobile unit, or expeditionary MCM company may be assigned as the MCMC. When assigned as the MIWC, the MCMC also plans and executes mining operations. When no MIWC is assigned under the JFMCC, responsibility for planning and executing naval mining operations usually rests with the CWC.

f. The command organization and relationships involving MIW forces will vary for each operation or exercise. In most cases, MIW operations are conducted under the framework of a TF architecture with the MIWC or MCMC reporting directly to the JFMCC. MIW can also be executed under the supported-supporting concept (e.g., the MCMC, operating as CTF MCM can be assigned as a supporting commander to the amphibious CTF in support of an amphibious assault).

For additional information regarding MIW, see JP 3-15, Barriers, Obstacles, and Mine Warfare for Joint Operations.

6. Strike Warfare

a. STW are naval operations to destroy or neutralize targets ashore, including attacks against strategic or tactical targets, such as manufacturing facilities and operating bases, from which the enemy is capable of conducting or supporting air, surface, or subsurface operations against friendly forces. Strike operations may employ ballistic or cruise missiles, aircraft, naval surface fires, Marines, and SOF to attack targets ashore. The term "strike warfare" commonly includes joint fire support, interdiction, strategic attack, and CAS. Amphibious operations may involve extensive application of STW capabilities and require coordination with the JFLCC and JFACC, while amphibious raids are also a form of strike operations.

b. STW may be conducted by ballistic and cruise missile-carrying submarines, aircraft carrier strike aircraft, SAGs of one or more naval surface vessels with TLAMs, naval surface gunnery, rotary-winged aircraft, UASs, and amphibious assault ships. Integration of TLAMs with strike aircraft in the same attack requires close coordination between the ACA, JFACC, JFMCC, and possibly the JFLCC to deconflict airspace and target selection. In openly hostile situations, extensive strike operations and offensive application of sea control warfare tasks, particularly with respect to mines and submarines, will be employed to gain access. An important element of gaining access includes neutralizing anti-ship cruise missiles prior to surface forces coming within their range. Long-range, high-speed, and maneuvering characteristics of such missiles make in-flight defeat challenging, necessitating strike operations to neutralize enemy launch platforms.

c. The STWC plans, directs, monitors, and assesses maritime power projection ashore and may strike surface targets at sea at extended ranges from the strike group for the CWC. The STWC normally exercises TACON of assigned STW assets. Typically,

the STWC does not plan or direct TLAM missions. The STWC integrates or coordinates carrier air wing (CVW) resources with TLAM missions via the launch area coordinator and Tomahawk strike coordinator. The STWC coordinates NSFS missions via the NSFS coordinator. The STWC identifies requirements for nonorganic STW air support. When Navy TF/TG/ships are operating in or adjacent to a JOA, they are to coordinate STW operations with the appropriate AOC.

d. The STWC should have direct access to the CWC, key strike planning personnel, and the intelligence center. Typically, a CVW commander embarked on the OTC's flagship is the STWC for CSGs. The amphibious squadron commodore is normally the STWC for ARGs. The staff of the STWC should include air wing representation from each of the different capability areas, cruise missile and NSFS officer augmentation, and intelligence support. The STWC will normally provide LNOs to the JFACC as part of the naval and amphibious liaison element.

e. The STWC will keep the AMDC and ACA informed of joining and control procedures for STW aircraft in accordance with the AMDC's directives.

7. Amphibious Operations

Amphibious operations are complex and may involve all components of the joint force. They are typified by close integration of forces trained, organized, and equipped for different combat functions. The JFC and JFMCC should shape the amphibious objective area or operational area by employing CSGs and other maritime and joint assets prior to the commencement of the amphibious operation. Shaping operations establish local maritime and air superiority, which is necessary for the amphibious operation to occur. The support relationship between the CSGs and other joint forces conducting the shaping operations and the amphibious force should be determined and provided in an establishing directive. Fundamental principles and guidance on the planning and execution of amphibious operations, to include command relationships and logistic support requirements, are contained in JP 3-02, *Amphibious Operations.* NATO doctrine ratified by the United States can be found in AJP-3.1, *Allied Joint Maritime Operations.* Additional Allied doctrine and tactics, techniques, and procedures can be found in Allied Tactical Publication-8 Volume I, *Amphibious Operations*, and Allied Tactical Publication-8, *Volume II, Tactics, Techniques, and Procedures for Amphibious Operations.*

8. Naval Surface Fire Support

a. NSFS units are normally OPCON to the NCC or TACON to the JFMCC and provide direct or general support to other joint force components or subordinate forces of the JFMCC (e.g., an amphibious force). When supporting a landing force or other ground forces, an NSFS spotting team is usually attached to the maneuvering forces for fire support coordination purposes. The JFMCC synchronizes fires with the active participation of the JFMCC strike/NSFS cell. For fire support, the JFMCC may exercise C2 through the supporting arms coordination center in the amphibious TF flagship or the force fires coordination center within the amphibious force organization assigned to the JFMCC.

b. During an amphibious assault, when the number of ships permits, the commander, amphibious TF, will assign each assault battalion a ship in direct support. The ship delivers fires in the zone of fire, which normally corresponds to the zone of action of the supported unit. When possible, ships capable of performing simultaneous missions may be given multiple direct support missions to allow for maximum support to the landing force.

For additional information regarding NSFS in support of amphibious operations, see JP 3-02, Amphibious Operations; *NTTP 3-02.2M/MCTP 3-31A,* Supporting Arms Coordination in Amphibious Operations; *Allied Tactical Publication-8,* Volume I, Amphibious Operations; *and Allied Tactical Publication-8,* Volume II, Tactics, Techniques, and Procedures for Amphibious Operations.

c. A ship in general support attacks targets in the zone of fire which correspond to the zone of action of the supported unit. Prearranged fires are delivered in accordance with a schedule of fires published in the amphibious TF OPORD and the NSFS plan in the landing force OPORD. Fires may also be allocated to a subordinate unit for a specific mission(s). Upon completion of the mission(s), the ship reverts to general support.

9. Commander's Communication Synchronization

a. Commander's communication synchronization (CCS) is a process that helps implement strategic-level guidance by coordinating, synchronizing, and ensuring the integrity and consistency of strategic- to tactical-level narratives, themes, messages, images, and actions throughout a joint operation across all relevant communication activities. JFCs, their component commanders, and staffs coordinate and adjust CCS plans, programs, products, and actions with the other interorganizational participants employed throughout the operational area, such as the various chiefs of mission relevant to the joint operation. Effective CCS focuses processes and efforts to understand and communicate with key audiences and create, strengthen, or preserve conditions favorable to advance USG interests, policies, and objectives.

b. The JFMCC plans actions in the information environment that disrupt and degrade adversary decision making and C2 systems, while protecting their own decision making and C2 systems. The JFMCC sets the conditions and creates the environment to allow tactical units to successfully execute information-related tasks. The CCS cell focuses on a range of disciplines and functions to develop a coordinated communication synchronization plan. The CCS cell consists of the CCS cell lead and subject matter experts on the use of information-related activities to achieve the commander's information related objectives. Communications between the JFC and the JFMCC may be difficult because of the geographic separation of the commands. The JFMCC should normally send a LNO to the JFC's CCS cell to facilitate communications and provide details on employment of maritime forces and capabilities. Upon receipt and analysis of the JFC's mission statement, the CCS planning cell passes any details of ongoing CCS themes and shaping efforts to the JFC and other component commanders' planners. The LNO can be instrumental in providing the CCS cell with the necessary information and assistance where required.

c. **IWC.** The IWC shapes and assesses the information environment, achieves and maintains local information superiority, develops and executes CCS plans in support of CWC objectives, and supports other warfare commanders. The IWC also ensures joint targeting board awareness of information-related objectives to maximize mission effectiveness of information-related activities and supporting lethal and nonlethal effects. The IWC coordinates with the MOC CCS cell to recommend or deconflict targets for attack and to determine potential effects of theater activities on CSG and ARG operations.

d. The IWC additionally supports operational-level efforts to achieve electromagnetic spectrum control. The primary means to gain operational electromagnetic spectrum control are: electromagnetic OE sensing and exploitation; electromagnetic agility; and electromagnetic fires, which include electronic attack, directed energy, and electromagnetic-enabled cyberspace attack.

For additional information regarding CCS, see JP 3-0, Joint Operations; *JP 3-13,* Information Operations; *JP 3-61,* Public Affairs; *and NTTP 3-13.1,* Theater and Campaign Information Operations Planning.

10. Maritime Interception Operations

a. MIO are efforts to monitor, query, and board merchant vessels in international waters to enforce sanctions against other nations, such as those in support of United Nations Security Council resolutions (UNSCRs), and/or prevent the transport of restricted goods. Boarding teams of Sailors, Marines, SOF, Coast Guardsmen, and specialized law enforcement personnel are trained in the techniques of visit, board, search, and seizure (VBSS) to conduct MIO worldwide. These boardings are used for specific missions based on authorities, laws, and jurisdiction. US warships may be tasked to conduct MIO or to provide support to embarked forces tasked with conducting boardings that are beyond the capability of normal ship's force VBSS teams. As in any operation, commanders considering opposed or noncompliant boardings must have timely intelligence of the threat and associated degree of risk and weigh this against the benefits of apprehension and capabilities of the forces to be employed.

b. USCG deployable specialized forces (DSF) may be embarked on various vessels for boardings associated with MIO, specifically, for LEO involving vessels suspected of illicit activity. Law enforcement, in accordance with Title 14, United States Code (USC), Section 522, gives the USCG statutory authority to make inquiries, examinations, inspections, searches, seizures, and arrests upon the high seas and waters over which the United States has jurisdiction for the prevention, detection, and suppression of violations of the laws of the United States. MIO by warships is authorized under international law to support international policy objectives. Navy ships carrying DSF support federal law enforcement efforts, but Navy and other DOD personnel are generally prohibited from direct involvement in law enforcement activity, such as boarding in conjunction with LEO, arrest, or seizure. Such personnel may fill support functions, including damage control; gas-free engineering; liquid load transfer; use of warning shots and/or disabling fire (while under USCG TACON); jettisoned contraband recovery; interpreting; and, at the direction of the boarding officer, collection of biometrics and digital evidence search and seizure.

Counterdrug (CD) operations and alien migrant interdiction operations are examples of LEO. LEO by USCG personnel, including DSF, are governed by Commandant Instruction M16247.1, *Maritime Law Enforcement Manual (MLEM)*, CGTTP 3-93.8/NTTP 3-07.4.1M, *Alien Migrant Interdiction Operations (AMIO) Tactics, Techniques, and Procedures*, and CGTTP 3-93.9/NTTP 3-07.4.2M, *Counter Drug Operations (CDO) Tactics, Techniques, and Procedures (TTP)*. Commandant Instruction M16247.1 includes detailed guidance with respect to legal authorities and policy (including USCG use of force policy) for USCG law enforcement missions.

c. MIO lines of authority should be streamlined and must be clearly understood by all forces involved in the conduct of the mission. The command structure selected may vary but will typically include some form of a support relationship, with the embarked forces being the supported command and other forces being in a supporting role; notwithstanding, the MIOC continues to be the officer assigned to command the operation (i.e., maintain TACON).

d. Expanded MIO are authorized by the President and directed by the Secretary of Defense to intercept vessels identified to be transporting terrorists and/or terrorist-related material that pose an imminent threat to the US and its allies.

e. Historically, MIO is a peacetime measure designed to enforce embargoes sanctioned by the United Nations Security Council (UNSC), national authority, or other regional organization. Purely peacetime MIO share many operational characteristics with the exercise of belligerent rights; however, they are conceptually different. The use of lethal force is closely controlled during MIO and is used only where necessary as a measure of last resort when all other means of embargo enforcement have failed. The recognized sanctioning body establishes the provisions of MIO (e.g., in a UNSCR). After a CCDR responsible for conducting MIO is designated, an OPORD is issued that conforms to the resolution. The NCC may issue AO-specific OPTASK supplements that address:

(1) Materials to be identified, tracked, diverted, or seized.

(2) Disposition of identified goods that are not to enter or leave a specified nation.

(3) Types of suspect vessels expected to transit the operational area.

(4) Questions to ask the suspect vessel during boarding.

(5) Criteria for diversion.

(6) Percentages of cargo that should be searched on each type of ship.

(7) ROE.

(8) Criteria used for classifying contacts and determining cleared vessels from possible sanction violators.

(9) Reporting procedures for initial contact report, boarding summaries, challenge summaries, diversion reports, and after action reports.

f. Conduct of MIO missions is based upon the concept of assessing the physical characteristics and resistance level anticipated or known to exist on the unit to be boarded versus the abilities of the boarding team. Each boarding is unique and inherently risky and characterized as compliant, noncompliant, or opposed boarding. A compliant boarding can quickly degrade into a noncompliant or opposed situation for a variety of reasons, a significant planning factor. When boarding a suspect vessel via helicopter insertion during a noncompliant or opposed boarding, specially trained and equipped forces are required.

g. Traditionally, the primary mechanism for MIO initiation has been through a UNSCR. However, other authorizations include consent of a coastal state or flag state, consent of the vessel master, an interception as a condition of port entry, belligerent right of visit and search, interception of a stateless vessel, or an interception made pursuant to the right of self-defense. The authority to conduct MIO is based on international law and is given by the UNSC, national authority, or other regional authority. Once it is decided the United States will participate in an operation, authorization for US forces to conduct MIO missions is initiated by the Secretary of Defense after approval by the President. The Chairman of the Joint Chiefs of Staff designates the appropriate CCDR to perform MIO based on the geographic location of operations. Depending on the nature and location of the threat, national-level leadership of the USG departments and agencies other than DOD may participate in the development and approval of COAs to respond to maritime threats through the Maritime Operational Threat Response (MOTR) Plan. MOTR is a component plan of the national strategy for maritime security. The United States is party to Proliferation Security Initiative (PSI) agreements with a number of other countries. These PSI agreements, entered into in furtherance of UNSCR 1540, *Resource Collection*, provide legal authority for the parties to board each other's vessels when such vessels are suspected of transporting weapons of mass destruction, their delivery systems, and related materials.

h. **Tactical-Level MIO C2.** As directed by the JFMCC, the MIOC is the OTC and serves as the primary authority for VBSS within the AO and gives the authority to conduct boardings; designates the supporting ships, supporting air assets, VBSS team, and search and rescue team; provides all available intelligence products; assigns communications frequencies required; and designates the OSC of the VBSS operation. The MIOC may retain the responsibilities of OSC and exercise TACON of all the forces and assets. The OSC assumes TACON, conducts surveillance, maintains accurate position data, and provides essential elements of information on the suspect vessel. The OSC reports progress of the operation to the MIOC and decides whether to go ahead with the mission or abort.

For more information on maritime detainee operations, see Appendix A, "Detainee Operations at Sea." For further information on MIO, see NTTP 3-07.11M/Coast Guard Tactics, Techniques, and Procedures (CGTTP) 3-93.3/Marine Corps Interim Publication (MCIP) 13-10Ii, Visit, Board, Search, and Seizure Operations.

11. Maritime Security Operations

a. Maritime security includes a collection of tasks that are derived from agreed-upon international law. MSO are those operations conducted to establish the conditions for security and protection of sovereignty in the maritime domain. Examples of MSO include missions to counter maritime-related terrorism, weapons proliferation, transnational crime, piracy, environmental destruction, and illegal seaborne migration. The maritime force assists mariners in distress, participates in security cooperation operations with allies and partners, shares situational awareness, and conducts maritime interception and LEO. MSO involve close coordination among governments, the private sector, international organizations, and NGOs.

b. **Counterpiracy.** International law has long recognized a general duty of all nations to cooperate in the repression of piracy. Piracy is an international crime consisting of illegal acts of violence, detention, or depredation committed for private ends by the crew or passengers of a private ship or aircraft beyond the territorial sea of another nation against another ship or aircraft or persons and property on board (depredation is the act of plundering, robbing, or pillaging). In international law, piracy is a crime that can be committed only on or over the high seas, EEZs, contiguous zones, and in other places beyond the territorial jurisdiction of any nation. The same acts (e.g., armed robbery, hostage taking, kidnapping, extortion) committed in the internal waters, territorial sea, archipelagic waters, or national airspace of a nation do not constitute piracy in international law but are, instead, crimes within the jurisdiction and sovereignty of the coastal nation.

c. Only warships, military aircraft, or other ships or aircraft clearly marked and identifiable as being in governmental service may seize a pirate ship or aircraft. A pirate vessel or aircraft, and all persons on board, seized and detained by a US vessel or aircraft should be taken, sent, or directed to the nearest port or airfield and delivered to appropriate law enforcement authorities for disposition, as directed by higher authority.

d. If a pirate vessel or aircraft fleeing from pursuit by a warship or military aircraft proceeds from the contiguous zone, EEZ, high seas, or international airspace, into the territorial sea, archipelagic waters, or national airspace of another country, every effort should be made to obtain the consent of the nation having sovereignty over the territorial sea, archipelagic waters, or airspace to continue pursuit. The inviolability of the territorial integrity of sovereign nations makes the decision of a warship or military aircraft to continue pursuit into these areas without such consent a serious matter. However, in extraordinary circumstances where life and limb are imperiled and contact cannot be established in a timely manner with the coastal nation, or the coastal nation is unable or unwilling to act, pursuit may continue into the territorial sea, archipelagic waters, or national airspace. US commanders should consult applicable standing ROE and OPORDs for specific guidance. Pursuit must be broken off immediately upon request of the coastal nation, and, in any event, the right to seize the pirate vessel or aircraft and to try the pirates devolves on the nation to which the territorial seas, archipelagic waters, or airspace belong.

e. Pursuit of a pirate vessel or aircraft through or over international straits overlapped by territorial seas or through archipelagic sea lanes or air routes may proceed with or

without the consent of the coastal nation or nations, provided the pursuit is expeditious and direct and the transit passage or archipelagic sea lanes passage rights of others are not unreasonably constrained in the process.

For more information on maritime detainee operations, see Appendix A, "Detainee Operations at Sea."

12. Maritime Homeland Defense and Defense Support of Civil Authorities

a. **HD.** Securing the maritime approaches is essential to keeping the homeland safe. Maritime assets are employed to detect, identify, localize, evaluate, sort, and when warranted, intercept or interdict threats, as far from the homeland as possible, to prevent or defeat an attack. This is a complex task, as threat vessels may not be easily differentiated from normal maritime activity and any disruption of commercial trade may have economic and financial implications domestically and internationally. It is also critical for DOD to maintain unrestricted freedom of movement to ensure the ability to deploy forces overseas. Responding to transnational threats requires coordination across the USG to prevent attacks on the homeland. Coordination and interoperability with USG departments and agencies, and state, tribal, and local law enforcement agencies (LEAs) (e.g., USCG, US Customs and Border Protection, and the Federal Bureau of Investigation), are important in this effort due to overlapping authorities, responsibilities, and potential simultaneous presence of response assets for maritime operations in the conduct of HD. Additionally, sharing of information and cooperation with multinational partners in regards to global maritime activities will greatly assist in the early detection and subsequent interception of maritime threats. Coordination often requires diverse communication capabilities with necessary planning and periodic training.

b. Defense support of civil authorities (DSCA) operations include support of US civil authorities for major disasters, emergencies, civil disturbance operations, designated defense support of civilian law enforcement authorities, and domestic special events. Available forces include warships and embarked forces, Navy Expeditionary Combat Command, coastal riverine forces, EOD, naval construction forces, and hospital ships.

See ATP 3-28.1/MCRP 3-30.6/NTTP 3-57.2/AFTTP 3.2.67, Multi-Service Tactics, Techniques, and Procedures for Defense Support of Civil Authorities (DSCA), *for a list of USMC and USN DSCA capabilities in a maritime environment.*

c. DOD, through the relevant CCDR, is prepared to respond to maritime threats from the forward regions to the homeland. The use of nonlethal weapons, munitions, and devices (e.g., dazzling lasers, acoustic hailing devices, and warning munitions) are integral to the execution of the FP mission and should be considered part of a layered defense to deter, discourage, delay, or prevent hostile action; limit escalation; and assist in hostile intent determination, while minimizing unintended loss of life. DOD maritime forces support an active layered defense through extensive operations in the forward regions, coupled with a high state of readiness and scalability to varying threat conditions in the maritime approaches and homeland. DOD is the lead federal agency in a maritime HD scenario, whether by discovery of a threat during normal operations, which requires

immediate action, or through the protocols established by the MOTR Plan. These protocols are based on existing law, desired USG outcome, greatest potential magnitude of the threat, response capabilities required, asset availability, and authority to act. During a DOD HD operation, USCG forces may be allocated under a provision of TACON (or OPCON, if otherwise agreed to) of the supported CCDR for HD to defeat the threat to the homeland. If the Department of Homeland Security is designated as lead for a maritime threat response, USCG retains OPCON of its forces, and USN forces may be allocated to the USCG under the provision of TACON to the designated USCG operational commander executing the maritime homeland security mission. Navy units under USCG TACON retain Title 10, USC, status and remain subject to restrictions placed on Title 10, USC, forces.

13. Global Maritime Partnerships and Security Cooperation

a. Global maritime partnerships and security cooperation represent the overarching framework by which the USG fosters and sustains cooperative relationships with international maritime partners. In concert with other Services, other USG departments and agencies, NGOs, and private industry, the USN, USMC, and USCG address mutual maritime concerns such as freedom of navigation, the safe flow of commerce, deterrence of terrorism, and protection of the oceans' resources in a voluntary, informal, and nonbinding capacity. US maritime forces conduct military engagement with like-minded nations to enhance security and governance. This is normally accomplished through mutual security training to expand the number of maritime professionals; assisting nations in developing maritime awareness, infrastructure, and law enforcement expertise; and the ability to respond to maritime threats and challenges. Building partner capacity and capability is achieved through security cooperation to include information exchange, training and exercise opportunities, multinational operations, and interoperability enhancements.

b. Naval forces provide the means of maintaining a global military presence while limiting the undesired economic, social, political, or diplomatic repercussions that often accompany US footprints ashore. Culturally aware, forward-deployed naval forces can provide a stabilizing influence on regional actors and can prevent or limit conflict. Forward-deployed naval forces provide US policy makers a range of options for influencing events while minimizing the risk of being drawn into a crisis or protracted entanglement.

c. Security cooperation tasks may include the use of coastal riverine, construction, EOD, mobile diving, intelligence, logistics, medical, and training resources. Maritime forces may also employ security cooperation MAGTFs to enhance civil-military operations or conduct security force assistance activities to build partner capability or capacity. The USCG's Atlantic Area Command and Pacific Area Command have OPCON of the Coast Guard's deployable specialized forces to provide specialized capabilities in incident response, maritime law enforcement, port security, and antiterrorism/counterterrorism and can be brought together for surge operations which can deploy in advance of a potential conflict to conduct prevention activities or, after a conflict has ensued, to compliment conventional forces and contribute to establishing and sustaining stability.

For additional details regarding security cooperation, refer to JP 3-20, Security Cooperation.

14. Sea-Based Operations

a. Seabasing leverages operational capabilities, sea-based platforms, logistical resources, maneuverability, health services, and tactical lift to support security cooperation through presence and interoperability and respond to crises. A sea base provides a JFC with a scalable and mobile capability in the JOA from which to exercise C2 or provide strike, power projection, fire support, and logistic capabilities where and when needed. Sea bases may be composed of individual ships (e.g., amphibious warfare ship, expeditionary sea base ship, destroyer, auxiliary ship), CSGs, ARGs and MEUs, expeditionary strike groups/Marine expeditionary brigades, maritime pre-positioning ships squadrons (MPSRONs) with embarked naval forces, Army pre-positioned stocks, and strategic sealift assets. Sea bases may also include other USG department and agency capabilities and multinational naval ships and platforms capable of employing forces and capabilities from the sea. However, belligerent acts, such as offensive mining, during international armed conflict must be performed by a warship, not a naval auxiliary. Therefore, if a US Naval Ship is to be used as a platform for belligerent acts, it must first be commissioned as a US Ship and the civilian merchant mariner captain replaced by a commissioned naval officer. Seabasing can reduce the footprint ashore and minimizes the need to place vulnerable assets ashore and a sea base can be established without reliance on HN support. A sea base may be composed of forces drawn from each joint force component. Seabasing is predicated on the ability to attain local maritime superiority. Discrete and tailored, sea-based forces are often deemed preferable among the local populace and government as a less obtrusive support option compared to having foreign troops on the ground in their country. Joint and multinational seabasing allows support and maneuverable sustainment to be phased ashore as required to best support the mission. Seabasing reduces the possible negative impact on limited infrastructure ashore and facilitates the protection of logistic support.

b. Seven overarching principles are essential to sea base operations:

(1) Use the sea as maneuver space. Seabasing exploits the use of the sea—which is relatively unconstrained by political restrictions—as operational maneuver space. Sea-based operations provide a JFC with the operational flexibility to support the immediate deployment, employment, and sustainment of expeditionary forces across the depth and breadth of the OE.

(2) Leverage forward presence and joint capabilities. Joint/coalition forces operating from the sea base, in conjunction with other globally based joint forces, provide a JFC with credible offensive and defensive capabilities during the early stages of a crisis. Forward-deployed joint forces can help to deter or preclude a crisis while enabling the subsequent introduction of additional forces, equipment, and sustainment.

(3) Protect joint/multinational force operations. Seabasing augments the layered defenses of maritime forces by enhancing freedom of operational maneuver. The

integration of these capabilities and freedom of maneuver degrades the enemy's ability to successfully target and engage friendly forces.

(4) Provide scalable, responsive joint power projection. A force rapidly closing the sea base gives a JFC the flexibility to tailor forces to the mission. A sea base can consist of one ship or dozens of ships, depending on mission requirements. Seabasing provides a JFC the option to mass, disperse, or project joint combat power throughout the operations area at the desired time.

(5) Sustain joint force operations from the sea. Sea-based logistics entails sustaining forces through an anticipatory and responsive logistic system to support naval forces and selected joint/coalition forces. The sea base is sustained through the interface with supply ships and other maritime platforms and aviation assets, enabling naval and selected joint forces to remain on station for extended periods of time.

(6) Expand access options and reduce dependence on land bases. Seabasing supports power projection capabilities to provide a JFC with multiple access options in the JOA, reducing—but not eliminating—reliance on forward basing.

(7) Create uncertainty for the threat. With its inherent distributed operational character, seabasing provides multiple points and means of entry. As a result, the threat is at a defensive disadvantage, which creates opportunities to exploit seams and gaps in defenses. In addition, it provides flexibility and options for responding to foreign humanitarian assistance (FHA) and other crisis response and limited contingency operations.

c. **C2 of Sea-Based Operations.** The command relationships established to conduct operations from the sea base are shaped by the mission requirements and will follow established joint doctrine command relationships. A JFC can conduct C2 of operations through subordinate joint TFs, Service components, functional components, or a combination of Service and functional components. The sea base will typically be aligned under the JFMCC or NCC when assigned. The JFMCC may designate a subordinate OTC to enable delegation of seabasing tasks as needed to manage the span of control commensurate to the mission(s) assigned, size, scope, threat environment, and availability of forces.

d. The decision to conduct joint/multinational seabasing operations depends on the tactical situation and the scope and intensity of the assigned mission. Once a decision has been made to establish a sea base and to define the capabilities and capacities that must be present in the sea base to meet commander's intent, the following questions should be addressed:

(1) What surveillance and FP capabilities are required to achieve and maintain access within the air and surface environments and to enable freedom of movement and maneuver for all seabasing lines of operation in support of mission objectives?

(2) What surveillance and FP capabilities are required within the JOA to extend naval defensive capabilities to protect joint forces operating at sea and ashore?

(3) What detection and FP capabilities are required to provide adequate defense against attacks by naval surface forces, submarines, small boats, and terrorist or suicide attacks from surface craft and swimmers?

(4) In the event of mines, what capabilities are required to detect, identify, neutralize, or clear mines to ensure maneuver access across key littoral approaches?

e. To determine if conditions have been met that no longer require seabasing capabilities or applications, the following questions should be posed and answered:

(1) Are APODs and/or SPODs capable of supporting continued military deployment, employment, sustainment, and reconstitution?

(2) Is FP sufficient?

(3) Is there an internal transportation network available?

(4) Post APOD and/or SPOD establishment operations ashore may warrant the sea base remain. Will throughput be sufficient to support operational needs?

(5) Does the sea base provide additional flexibility, security, or additional distribution capability?

f. The information infrastructure for the sea base will be an integral part of the larger joint C2 infrastructure. The sea base information infrastructure should provide an interoperable and scalable integrated C2 infrastructure supporting a common, standardized set of joint and multinational C2 capabilities, integrated applications, and hardware. The information infrastructure should enhance the ability to rapidly activate and deploy a sea base with a common package that can sustain operations for the duration of the contingency, support efficient routing of distributed C2 through collaborative networks, and decrease the lag between deployment and full operational capabilities.

For more information on seabasing, see NWP 3-62M/Marine Corps Warfighting Publication (MCWP) 13-10, Seabasing, *and Allied Tactical Publication-8,* Volume I, Doctrine for Amphibious Operations.

15. Counterdrug Operations

a. CCDRs plan and execute DOD CD operations within their AORs. DOD supports federal, state, and local LEA efforts to disrupt the transport and/or transfer of illegal drugs into the United States. CD is a high-priority, national security, and international cooperation mission, with DOD functions and responsibilities based on statutory authority. The Armed Forces of the United States also assists our partner nations in their CD efforts.

b. The C2 relationships established for CD operations will vary based on the environment in which they are conducted. Considering most CD operations are in support of either partner nations or LEAs, it is important to remember that even though command

of US military forces will remain within DOD, the overall control of the mission may be determined by a lead federal agency or agreements with foreign authorities.

c. Joint maritime CD operations:

(1) Use intelligence sources to target specific persons, vessels, and aircraft involved in the drug trade.

(2) Patrol to detect targets of interest using electronic, visual, and intelligence means.

(3) Monitor, track, and hand off targets of interest.

(4) Intercept, sweep, and potentially search vessels.

(5) Apprehend suspects and seize vessels and contraband.

For additional information regarding CD operations, see JP 3-07.4, Counterdrug Operations.

16. Noncombatant Evacuation Operations

Joint maritime forces, especially amphibious forces, are often used to conduct noncombatant evacuation operations. This is primarily due to their forward-deployed posture; ability to maintain forces afloat, thus not taxing the infrastructure ashore or raising tensions around the US mission or toward US presence; an ability to provide additional forces should the security situation warrant; their self-sustainability; and the ability to transition to other types of operations or provide access for the deployment of other forces.

For additional information on noncombatant evacuation operations, see JP 3-68, Noncombatant Evacuation Operations.

17. Protection of Shipping

a. There are multiple methods and options to protect shipping. One method is to conduct wide sea control operations that attempt to protect the waters or known traffic routes through which many ships pass. Another method is to gather merchant ships and devote protection assets to the convoy, requiring only localized supremacy. Both constructs can be used within wider sea control operations if resources permit. When there is a severe risk to maritime trade, convoys have been an effective method of reducing the scale of the sea control problem. If shipping is gathered in convoys, the area and time over which sea control must be exercised for their protection is reduced to a minimum. Convoys complicate the attacker's task and concentrates escorting forces to enhance the effectiveness of protection. However, convoys are less likely to deceive the enemy or deny the enemy intelligence about the position of friendly shipping. It presents the enemy a much more localized and lucrative target. It is also disruptive to trade. The strategic or operational decision to convoy requires careful weighing of advantages, disadvantages, and the opportunities for drawing the enemy into decisive action.

b. During any operation, merchant ship activity needs to be closely monitored, and effective coordination and close cooperation between military, civilian, commercial, and government organizations is required to provide for the necessary level of liaison and safety. In certain situations, maritime forces may be called upon to protect ships of any nationality carrying cargoes of interest to the US and its allies. NATO created the NCAGS that established an organization and procedures to provide continuous near real time situational awareness of merchant shipping in support of maritime HD and the forward-deployed theater/operational commanders. NCAGS provides accurate and timely merchant vessel information, advises the JFMCC with regard to interacting with the merchant shipping industry and other MDA and interagency stakeholders, and provides advice on the deconfliction and protection of the vessels in the AOR. NCAGS bridges the gap between operational forces and merchant shipping by providing a framework for communicating directions, advisories, concerns, and information. The range of options is designed to allow flexibility in tailoring NCAGS policy to the particular requirements and situation in the NCAGS area. In its simplest form, NCAGS is another tool to support the operational commander's overall sea control mission requirement, directed and managed as any other warfare mission area asset.

c. NCAGS operations have evolved with the changing threat posed to merchant shipping and by merchant shipping in the context of regional operations and maritime HD, where merchant shipping may be the protagonist or target. These operations address the traditional protection and control of shipping in a region and the emerging requirement of specialized communications to increase maritime situational awareness of merchant shipping in the areas of crisis response, maritime security, sea control, civil-military operations, counterterrorism, and counterpiracy. NCAGS applies to maritime HD, contingency support, and general economic shipping. Maritime HD support assists the USCG and fleet commanders with the production of a COP relating to merchant shipping within the territorial seas and EEZ waters surrounding the US, its territories, and interests. Types of contingency support shipping include naval vessels of the Military Sealift Command, shipping operated or chartered by the USG to support naval operations or to meet US policy objectives, crisis response shipping, and relief shipping chartered by government departments or agencies. Types of economic shipping include vessels conducting normal commercial trade worldwide, regardless of flag or ownership, or such other shipping that is not under the control or direction of the USG.

d. Specific to maritime HD operations in the United States Northern Command (USNORTHCOM) AOR, the USCG is the lead Department of Homeland Security agency for maritime security. The MOCs work jointly with the USCG maritime intelligence fusion centers to form the joint maritime information fusion center. The MOCs provide positional information of merchant vessels operating in the USNORTHCOM AOR to improve MDA.

For additional information on NCAGS, see JP 3-36, Joint Air Mobility and Sealift Operations; *NTTP 3-07.12,* Naval Cooperation and Guidance for Shipping (NCAGS); *and Allied Tactical Publication-02,* Naval Cooperation and Guidance for Shipping (NCAGS) Manual.

18. Maritime Pre-Positioning Force Operations

a. A maritime pre-positioning force (MPF) operation is the rapid deployment and assembly of a MAGTF in a secure area using intratheater and intertheater airlift and forward-deployed maritime pre-positioning ships. An MPF operation is a mission-tailored, strategic deployment option that is global in nature, naval in character, and suitable for various employment scenarios. The maritime pre-positioning of combat equipment and supplies provides a CCDR with deployment flexibility and an increased capability to respond rapidly to a crisis or contingency with a credible force. The essential purpose of an MPF operation is to establish a MAGTF that is fully prepared to execute an employment mission. An MPF operation includes the airlift of MAGTF and Navy elements, the Navy support element, and naval port security units with selected equipment into an arrival and assembly area to join with equipment and supplies carried aboard maritime pre-positioning ships. An MPF operation may consist of one ship interacting with a forward-deployed MEU, an MPSRON and a Marine expeditionary brigade fly-in echelon, or a Marine expeditionary force falling in on one of the two MPSRONs within the MPF. The MPF is one component of the USMC's rapid response capability triad, which also includes the global response force and forward-deployed amphibious forces. An MPF operation may also include a crisis response force package to support operations.

b. An MPF is a temporary organization comprised of a MAGTF with assigned naval forces under the MAGTF command element and an MPSRON and NAVFOR under the command of the commander, maritime pre-positioning force (CMPF). The command relationship established between the MAGTF commander and the CMPF should provide for unity of effort, simplicity, and flexibility across the MPF operation phases. It should be clearly defined and based upon an assessment of mission requirements. A support relationship is established between the CMPF and MAGTF commander in the establishing directive. For MPF operations, the Navy support element would consist of Navy expeditionary logistics support group (NAVELSG) and naval beach group forces actually off-loading the MAGTF cargo and interfacing between the MPSRON vessels and the deployed MAGTF. For the MAGTF, NAVELSG forces support the loading and unloading of cargo and passengers. If JLOTS becomes part of the sustainment or assault follow-on echelon operations, NAVELSG forces will be providing logistics support in many areas.

For additional information regarding maritime pre-positioning operations, see MCTP 13-10D/NTTP 3-02.3M, Maritime Prepositioning Force Operations, *and JP 3-36*, Joint Air Mobility and Sealift Operations.

19. Foreign Humanitarian Assistance

Maritime forces can provide speed of reaction, operational maneuver, and assured access while significantly reducing the footprint ashore and minimizing the permissions required to operate from the HN. A forward-deployed ARG/MEU can provide immediate national response in support of humanitarian and natural-disaster relief operations. This includes MAGTF response teams, platoon-sized elements capable of detecting a wide range of chemical, biological, radiological, and nuclear hazards. Other forward-deployed maritime units (e.g., CSGs, individual ships or cutters, and US naval construction force

units) may provide more limited, immediate relief support (e.g., airlift support, personnel recovery, engineering capabilities) and a secure platform for staging or rest and recuperation until a larger force arrives. USN ships can provide a safe and accessible location for the JFC's HQ, provide seabasing support to the joint force and have a limited ability to produce and distribute electrical power and clean water. Hospital ships, expeditionary medical facilities, and forward-deployable preventive medicine units are other USN assets that can be tailored to support FHA missions. In addition, coastal riverine forces can provide harbor security and FP to Navy ships, limited medical response assets, and expeditionary C2 support ashore for FHA missions. The maritime pre-positioning ships, with their evolving MPF capabilities, are additional resources strategically located around the world that, in combination with supporting naval forces, may respond to a regional FHA crisis. Specifically, maritime pre-positioning ships have the capability to purify water and transfer it ashore. Bulk petroleum transfer capability is also available (dependent on individual ship's craft/equipment configuration).

For more information on FHA, see JP 3-29, Foreign Humanitarian Assistance.

20. Maritime Operational Threat Response

a. The *National Strategy for Maritime Security* and the MOTR Plan are directed in the National Security Presidential Directive-41/Homeland Security Presidential Directive-13, *Maritime Security Policy*. The MOTR Plan establishes the protocols to achieve coordinated, unified, timely, and effective planning and execution by various departments and agencies of the USG. The MOTR Plan addresses the full range of maritime security threats to the homeland, including nation-state military threats; piracy; state/non-state criminal, unlawful, or hostile acts such as smuggling; threat vessels with cargo; or personnel requiring investigation and disposition.

b. The MOTR Plan predesignates USG departments and agencies with lead responsibilities, clarifies interagency roles and responsibilities, and establishes protocols and procedures for a coordinated response to achieve the USG's desired outcome for a particular threat.

c. The MOTR protocols and procedures allow rapid response to short-notice threats and require interagency partners to begin coordination activities (i.e., MOTR conference calls) at the earliest possible opportunity when one of the following triggers are met:

(1) Any specific terrorist or state threat exists, and US response action is or could be imminent.

(2) More than one USG department or agency has become substantially involved in responding to the threat.

(3) The agency or department either lacks the capability, capacity, or jurisdiction to address the threat.

(4) Upon resolving the threat, the initial responding USG department or agency cannot execute the disposition of cargo, people, or vessels acting under its own authority.

(5) The threat poses a potential adverse effect on the foreign affairs of the United States.

d. The MOTR coordination process is conducted through a virtual network of interagency national and operational command centers. This coordination process determines which agency is the right choice to lead the USG response and what other departments and agencies are needed to support the response effort. The MOTR protocols include a process to transition the lead from one agency to another and dispute resolution (i.e., if the USG desired outcome cannot be resolved at the lower levels of government, the characterization of a particular threat could ultimately be elevated for resolution by higher authority). At the tactical level, it is important to realize that the MOTR process exists to achieve a USG desired outcome and coordinate and assist in bringing additional capabilities to bear on a threat.

e. MOTR presents guiding principles that apply to all agencies at all times and sets the basic standards for interagency actions to overcome maritime threats to the US.

f. Successful MOTR execution is fundamentally reliant on the operational intelligence linkage. This linkage is optimized through ongoing efforts to achieve MDA.

21. Riverine Operations

The coastal riverine force employs small, armed patrol craft to provide a maritime security capability that includes surveillance and interdiction, as well as destruction of waterborne and land threats in the inshore, coastal, and riverine environment. Coastal riverine force capabilities include waterway interdiction, maneuver of craft to counter maritime threats, surveillance and intelligence collection, movement to the AO, landing of troops and equipment (limited to pierside with sufficient depth), and expeditionary C2 support ashore. The core competencies of coastal riverine force units can be applied across the competition continuum.

For additional information regarding HD, see JP 3-27, Homeland Defense, *and for more information on DSCA, see JP 3-28,* Defense Support of Civil Authorities. *More information on the different authorities and requirements between USCG Title 14, USC, and USN Title 10, USC, during maritime operations is found in both publications.*

APPENDIX A
DETAINEE OPERATIONS AT SEA

1. It may be necessary to detain individuals on naval vessels in situations in which they are initially captured at sea (e.g., counterterrorism, counter-piracy operations, directed maritime interdiction operations, or recovery of shipwrecked enemy personnel). Such individuals may be held on board as operational needs dictate, pending a reasonable opportunity to transfer them to a shore facility or to another vessel for eventual transfer to a shore facility. Additionally, individuals not initially detained at sea may be temporarily held on board naval vessels while being transported between land facilities or in other cases dictated by operational necessity. In all cases of detention at sea, detained individuals should be moved from the vessel to a shore detention facility at the earliest opportunity consistent with operational imperatives.

2. As with any detained personnel, US forces conducting at-sea detention are obligated to comply with applicable legal and policy standards for the treatment of detainees. These include the requirement to treat detained individuals humanely and in accordance with Article 3 of the 1949 Geneva Conventions during non-international armed conflict, the Detainee Treatment Act, the principles set forth in Article 75 of Additional Protocol I to the Geneva Conventions during international armed conflict, and applicable provisions of the 1949 Geneva Convention Relative to the Treatment of Prisoners of War.

3. Holding captured individuals on board naval vessels is permissible only under strictly limited circumstances and is a temporary measure permitted until the detained individuals can be transferred to a shore-based facility. It is limited to the minimum period necessary to transfer detainees from a zone of hostilities or as a result of operational necessity.

4. Individuals detained in connection with international armed conflict and classified as prisoners of war (including retained personnel) are subject to special rules that can limit the discretion of US forces to detain such persons at sea. Article 22 of the 1949 Geneva Convention Relative to the Treatment of Prisoners of War states, "Prisoners of war may be interned only in premises located on land and affording every guarantee of hygiene and healthfulness." This rule is intended to ensure that prisoners of war are interned in a relatively safe and healthy environment. Detention aboard ship for prisoners of war captured at sea, or pending the establishment of suitable facilities on land, is nonetheless consistent with Article 22 if detention on a ship provides the most appropriate living conditions. Ships may also be used to transport prisoners of war or for screening. The use of immobilized vessels for even temporary holding of prisoners of war or retained personnel is prohibited without Secretary of Defense approval.

5. Commanders should seek assistance from staff judge advocates/legal advisors regarding the status and treatment of persons detained on board naval (or other) vessels, and ensure personnel assigned to detainee handling are fully trained and equipped to execute their duties.

For additional information on temporary detention of individuals aboard US Navy vessels see Army Regulation 190-8/ Chief of Naval Operations Instruction 3461.6/Air Force Joint

Instruction 31-304/Marine Corps Order 3461.1, Enemy Prisoners of War, Retained Personnel, Civilian Internees , and Other Detainees.

APPENDIX B
REFERENCES

The development of JP 3-32 is based upon the following primary references:

1. General

a. National Security Presidential Directive-41/Homeland Security Presidential Directive -13, *Maritime Security Policy*.

b. *The National Strategy for Maritime Security.*

c. *National Maritime Domain Awareness Plan for the National Strategy for Maritime Security.*

2. Department of Defense Publication

DODD 3000.03E, *DOD Executive Agent for Non-Lethal Weapons (NLW), and NLW Policy*.

3. Chairman of the Joint Chiefs of Staff Publications

a. CJCSM 3130.03, *Adaptive Planning and Execution (APEX) Planning Formats and Guidance.*

b. CJCSM 4301.01, *Planning Operational Contract Support.*

c. JP 1, *Doctrine for the Armed Forces of the United States.*

d. JP 1-0, *Joint Personnel Support.*

e. JP 2-0, *Joint Intelligence.*

f. JP 2-01, *Joint and National Intelligence Support to Military Operations.*

g. JP 2-01.3, *Joint Intelligence Preparation of the Operational Environment.*

h. JP 3-0, *Joint Operations.*

i. JP 3-01, *Countering Air and Missile Threats.*

j. JP 3-02, *Amphibious Operations.*

k. JP 3-03, *Joint Interdiction.*

l. JP 3-26, *Joint Combating Terrorism.*

m. JP 3-09, *Joint Fire Support.*

n. JP 3-10, *Joint Security Operations in Theater.*

o. JP 3-12, *Cyberspace Operations.*

p. JP 3-13, *Information Operations.*

q. JP 3-13.3, *Operations Security.*

r. JP 3-15, *Barriers, Obstacles, and Mine Warfare for Joint Operations.*

s. JP 3-16, *Multinational Operations.*

t. JP 3-20, *Security Cooperation.*

u. JP 3-28, *Defense Support of Civil Authorities.*

v. JP 3-29, *Foreign Humanitarian Assistance.*

w. JP 3-30, *Joint Air Operations.*

x. JP 3-31, *Joint Land Operations.*

y. JP 3-33, *Joint Force Headquarters.*

z. JP 3-52, *Joint Airspace Control.*

aa. JP 3-52, *Joint Airspace Control.*

bb. JP 3-57, *Civil-Military Operations.*

cc. JP 3-59, *Meteorological and Oceanographic Operations.*

dd. JP 3-60, *Joint Targeting.*

ee. JP 4-0, *Joint Logistics.*

ff. JP 4-01, *The Defense Transportation System.*

gg. JP 4-01.5, *Joint Terminal Operations.*

hh. JP 4-01.6, *Joint Logistics Over-the-Shore.*

ii. JP 4-02, *Joint Health Services.*

jj. JP 4-09, *Distribution Operations.*

kk. JP 4-10, *Operational Contract Support.*

ll. JP 5-0, *Joint Planning.*

4. Multi-Service Publications

a. Army regulation 190-8 /Chief of Naval Operations instruction 3461.6/Air Force Joint instruction 31-304/Marine Corps order 3461.1, *Enemy Prisoners of War, Retained Personnel, Civilian Internees and Other Detainees.*

b. ATP 3-01.15/MCTP 10-10B/NTTP 3-01.8/AFTTP 3-2.31, *Multi-Service Tactics, Techniques, and Procedures for an Integrated Air Defense System.*

c. ATP 3-28.1/MCRP 3-30.6/NTTP 3-57.2/AFTTP 3-2.67, *Multi-Service Tactics, Techniques, and Procedures for Defense Support of Civil Authorities (DSCA)*.

d. ATP 3-04.18/MCRP 3-20.2/NTTP 3-20.8/AFTTP 3-2.74, *Multi-Service Tactics, Techniques, and Procedures for Air Operations in Maritime Surface Warfare*.

e. NTTP 3-02.3M/MCTP 13-10D, *Maritime Prepositioning Force Operations.*

f. NWP 3-62M/MCWP 13-10, *Seabasing.*

g. NTTP 3-07.11M/CGTTP 3-93.3/MCIP 13-10Ii, *Visit, Board, Search, and Seizure Operations.*

h. NTTP 3-10.1M/MCTP 3-34D, *Seabee Operations in the Marine Air-Ground Task Force (MAGTF).*

i. NWP 1-14M/MCTP 11-10B/*Commandant Publication* P5800.7A, *The Commander's Handbook on the Law of Naval Operations.*

5. Navy Publications

a. NTTP 3-07.4M/Commandant Instruction M16247.4, *Maritime Counterdrug and Alien Migration Interdiction Operations.*

b. NTTP 3-07.12, *Naval Cooperation and Guidance for Shipping (NCAGS).*

c. NTTP 3-13.1, *Theater and Campaign Information Operations.*

d. NTTP 3-32.1, *Maritime Operations Center.*

e. NTTP 4-01.4, *Underway Replenishment.*

f. NTTP 4-02.1, *Medical Logistics.*

g. NTTP 4-02.2, *Patient Movement.*

h. NTTP 4-02.7, *Health Service Support in a Chemical, Biological, Radiological, and Nuclear Environment.*

i. NTRP 3-20.3.1, *Multi-threat Surface Ship Defense.*

j. NTRP 4-10.1, *Naval Conventional Ordnance Management.*

k. NWP 2-01, *Intelligence Support to Naval Operations.*

l. NWP 3-09, *Navy Fire Support.*

m. NWP 3-10, *Navy Expeditionary Combat Command Forces.*

n. NWP 3-13, *Navy Information Operations.*

o. NWP 3-15 Series, *Mine Warfare.*

p. NWP 3-20 Series, *Surface Warfare.*

q. NWP 3-21, *Fleet Antisubmarine Warfare.*

r. NWP 3-32, *Command and Control of Maritime Forces at the Operational Level of War.*

s. NWP 3-56, *Composite Warfare; Maritime Operations at the Tactical Level of War.*

t. NWP 4-01, *Naval Transportation.*

u. NWP 4-01.1, *Navy Advanced Base Logistics Operations.*

v. NWP 4-08, *Naval Supply Operations.*

w. NWP 4-11, *Environmental Protection.*

x. NWP 5-01, *Navy Planning.*

6. United States Coast Guard Publications

a. Coast Guard Tactics, Techniques, and Procedures (CGTTP) 3-93.8/NTTP 3-07.4.1M, *Alien Migrant Interdiction Operations (AMIO) Tactics, Techniques, and Procedures.*

b. CGTTP 3-93.9/NTTP 3-07.4.2M, *Counter Drug Operations (CDO) Tactics, Techniques, and Procedures (TTP).*

c. Alien Migrant Interdiction Operations (AMIO) Tactics, Techniques, and Procedures.

d. Commandant Instruction M16247.1, U.S. Coast Guard Maritime Law Enforcement Manual.

APPENDIX C
ADMINISTRATIVE INSTRUCTIONS

1. User Comments

Users in the field are highly encouraged to submit comments on this publication using the Joint Doctrine Feedback Form located at: https://jdeis.js.mil/jdeis/jel/jp_feedback_form.pdf and e-mail it to: js.pentagon.j7.mbx.jedd-support@mail.mil. These comments should address content (accuracy, usefulness, consistency, and organization), writing, and appearance.

2. Authorship

a. The lead agent for this publication is the US Navy. The Joint Staff doctrine sponsor for this publication is the Joint Staff Operations Directorate (J-3).

b. The following staff, in conjunction with the joint doctrine development community, made a valuable contribution to the revision of this joint publication: lead agent, Mr. Charles Shaver, Navy Warfare Development Command; technical review authority, Mr. David Groves, Capabilities Development Directorate, Headquarters, US Marine Corps Combat Development and Integration; Joint Staff doctrine sponsor, CDR Jonathan Vanecko, USN, Joint Doctrine Analysis Branch action officer, Mr. Alan Armitstead, Joint Staff J-7; and Joint Doctrine Branch, Lt Col Lewis Vaughn, USAF, Joint Staff J-7.

3. Supersession and Cancellation (if required)

This publication supersedes JP 3-32, 07 August 2013, *Command and Control for Joint Maritime Operations.*

4. Change Recommendations

a. To provide recommendations for urgent and/or routine changes to this publication, please complete the Joint Doctrine Feedback Form located at: https://jdeis.js.mil/jdeis/jel/jp_feedback_form.pdf and e-mail it to: js.pentagon.j7.mbx.jedd-support@mail.mil.

b. When a Joint Staff directorate submits a proposal to the CJCS that would change source document information reflected in this publication, that directorate will include a proposed change to this publication as an enclosure to its proposal. The Services and other organizations are requested to notify the JS J-7 when changes to source documents reflected in this publication are initiated.

5. Lessons Learned

The Joint Lessons Learned Program's (JLLP's) primary objective is to enhance joint force readiness and effectiveness by contributing to improvements in doctrine, organization, training, materiel, leadership and education, personnel, facilities, and policy. The Joint Lessons Learned Information System (JLLIS) is the DOD system of record for

The Joint Lessons Learned Information System (JLLIS) is the DOD system of record for lessons learned and facilitates the collection, tracking, management, sharing, collaborative resolution, and dissemination of lessons learned to improve the development and readiness of the joint force. The JLLP integrates with joint doctrine through the joint doctrine development process by providing lessons and lessons learned derived from operations, events, and exercises. As these inputs are incorporated into joint doctrine, they become institutionalized for future use, a major goal of the JLLP. Lessons and lessons learned are routinely sought and incorporated into draft JPs throughout formal staffing of the development process. The JLLIS Website can be found at https://www.jllis.mil (NIPRNET) or http://www.jllis.smil.mil (SIPRNET).

6. Releasability

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7. Printing and Distribution

a. The Joint Staff does not print hard copies of JPs for distribution. An electronic version of this JP is available on:

(1) NIPRNET Joint Electronic Library Plus (JEL+) at https://jdeis.js.mil/jdeis/index.jsp (limited to .mil and .gov users with a DOD common access card),

(2) SIPRNET JEL+ at https://jdeis.js.smil.mil/jdeis/index.jsp, and

(3) Internet JEL [Joint Electronic Library] at http://www.jcs.mil/Doctrine/.

b. This JP can be locally reproduced for use within the combatant commands, Services, National Guard Bureau, Joint Staff, and combat support agencies.

GLOSSARY

PART I—ABBREVIATIONS, ACRONYMS, AND INITIALISMS

AADC	area air defense commander
AADP	area air defense plan
ABFC	advanced base functional component
ACA	airspace control authority
AD	air defense
AFTTP	Air Force tactics, techniques, and procedures
AJP	Allied joint publication
ALOC	air line of communications
AMD	air and missile defense
AMDC	air and missile defense commander
AO	area of operations
AOC	air operations center
AOR	area of responsibility
APOD	aerial port of debarkation
ARG	amphibious ready group
ASW	antisubmarine warfare
ASWC	antisubmarine warfare commander
ATP	Army techniques publication
BMD	ballistic missile defense
C2	command and control
CAS	close air support
CCDR	combatant commander
CCIR	commander's critical information requirement
CCMD	combatant command
CCS	commander's communication synchronization
CD	counterdrug
CGTTP	Coast Guard tactics, techniques, and procedures
CIEA	classification, identification, and engagement area
CJCSM	Chairman of the Joint Chiefs of Staff manual
CMPF	commander, maritime pre-positioning force
COA	course of action
COG	center of gravity
COMFLTCYBERCOM	Commander, Fleet Cyber Command
CONOPS	concept of operations
COP	common operational picture
CSG	carrier strike group
CTF	commander, task force
CTF IAMD	commander, task force integrated air and missile defense
CUL	common-user logistics
CVW	carrier air wing
CWC	composite warfare commander

D3A	decide, detect, deliver, and assess
DCA	defensive counterair
DCO	defensive cyberspace operations
DOD	Department of Defense
DODIN	Department of Defense information network
DSCA	defense support of civil authorities
DSF	deployable specialized forces
EEZ	exclusive economic zone
EOD	explosive ordnance disposal
FHA	foreign humanitarian assistance
FP	force protection
HD	homeland defense
HN	host nation
HQ	headquarters
IAMD	integrated air and missile defense
IWC	information operations warfare commander
J-2	intelligence directorate of a joint staff
J-3	operations directorate of a joint staff
J-6	communications system directorate of a joint staff
JFACC	joint force air component commander
JFC	joint force commander
JFLCC	joint force land component commander
JFMCC	joint force maritime component commander
JIPOE	joint intelligence preparation of the operational environment
JLOTS	joint logistics over-the-shore
JOA	joint operations area
JP	joint publication
JPP	joint planning process
LEA	law enforcement agency
LEO	law enforcement operations
LNO	liaison officer
MAGTF	Marine air-ground task force
MCIP	Marine Corps interim publication
MCM	mine countermeasures
MCMC	mine countermeasures commander
MCRP	Marine Corps reference publication
MCTP	Marine Corps tactical publication
MCWP	Marine Corps warfighting publication

MDA	maritime domain awareness
MEU	Marine expeditionary unit
MEZ	missile engagement zone
MIO	maritime interception operations
MIOC	maritime interception operations commander
MIW	mine warfare
MIWC	mine warfare commander
MNFC	multinational force commander
MNFMCC	multinational force maritime component commander
MOC	maritime operations center
MOE	measure of effectiveness
MOP	measure of performance
MOTR	maritime operational threat response
MPF	maritime pre-positioning force
MPSRON	maritime pre-positioning ships squadron
MSO	maritime security operations
NATO	North Atlantic Treaty Organization
NAVELSG	Navy expeditionary logistics support group
NAVFOR	Navy forces
NCAGS	naval cooperation and guidance for shipping
NCC	Navy component commander
NGO	nongovernmental organization
NSFS	naval surface fire support
NTRP	Navy tactical reference publication
NTTP	Navy tactics, techniques, and procedures
NWP	Navy warfare publication
OCO	offensive cyberspace operations
OCS	operational contract support
OE	operational environment
OPCON	operational control
OPLAN	operation plan
OPORD	operation order
OPTASK	operational tasking (message)
OSC	on-scene commander
OTC	officer in tactical command
PIR	priority intelligence requirement
PMI	prevention of mutual interference
PSI	Proliferation Security Initiative
RADC	regional air defense commander
ROE	rules of engagement
SAG	surface action group
SLOC	sea line of communications

SOF	special operations forces
SPOD	seaport of debarkation
SSWG	space support working group
STANAG	standardization agreement (NATO)
STW	strike warfare
STWC	strike warfare commander
SUBOPAUTH	submarine operating authority
SUW	surface warfare
SUWC	surface warfare commander
TACON	tactical control
TASWC	theater antisubmarine warfare commander
TF	task force
TG	task group
TLAM	Tomahawk land-attack missile
TST	time-sensitive target
UAS	unmanned aircraft system
UNCLOS	United Nations Convention on the Law of the Sea
UNSC	United Nations Security Council
UNSCR	United Nations Security Council resolution
USC	United States Code
USCG	United States Coast Guard
USG	United States Government
USMC	United States Marine Corps
USN	United States Navy
USNORTHCOM	United States Northern Command
USW	undersea warfare
VA	vital area
VBSS	visit, board, search, and seizure
WSM	waterspace management

PART II—TERMS AND DEFINITIONS

aircraft carrier. A warship designed to support and operate aircraft, engage in attacks on targets afloat or ashore, and engage in sustained operations in support of other forces. Also called **CV** or **CVN.** (DOD Dictionary. Source: JP 3-32)

antisubmarine warfare. Operations conducted with the intention of denying the enemy the effective use of submarines. Also called **ASW.** (DOD Dictionary. Source: JP 3-32)

carrier air wing. Two or more aircraft squadrons formed under one commander for administrative and tactical control of operations from a carrier. Also called **CVW.** (DOD Dictionary. Source: JP 3-32)

carrier strike group. A standing naval task group consisting of a carrier, embarked air wing, surface combatants, and submarines as assigned in direct support, operating in mutual support with the task of destroying hostile submarine, surface, and air forces within the group's assigned operational area and striking at targets along hostile shore lines or projecting power inland. Also called **CSG.** (DOD Dictionary. Source: JP 3-32)

composite warfare commander. An officer to whom the officer in tactical command of a naval task organization may delegate authority to conduct some or all of the offensive and defensive functions of the force. Also called **CWC.** (DOD Dictionary. Source: JP 3-32)

contiguous zone. 1. A maritime zone adjacent to the territorial sea that may not extend beyond 24 nautical miles from the baselines from which the breadth of the territorial sea is measured. 2. The zone of the ocean extending 3-12 nautical miles from the United States coastline. (DOD Dictionary. Source: JP 3-32)

fleet. An organization of ships, aircraft, Marine Corps forces, and shore-based fleet activities under a commander who may exercise operational, as well as administrative, control. (DOD Dictionary. Source: JP 3-32)

forward presence. Maintaining forward-deployed or stationed forces overseas to demonstrate national resolve, strengthen alliances, dissuade potential adversaries, and enhance the ability to respond quickly to contingencies. (DOD Dictionary. Source: JP 3-32)

global maritime partnership. An approach to cooperation among maritime nations with a shared stake in international commerce, safety, security, and freedom of the seas. (DOD Dictionary. Source: JP 3-32)

high seas. The open ocean area that is over 200 nautical miles from shore. (DOD Dictionary. Source: JP 3-32)

maritime domain. The oceans, seas, bays, estuaries, islands, coastal areas, and the airspace above these, including the littorals. (DOD Dictionary. Source: JP 3-32)

maritime domain awareness. The effective understanding of anything associated with the maritime domain that could impact the security, safety, economy, or environment of a nation. Also called **MDA.** (DOD Dictionary. Source: JP 3-32)

maritime forces. Forces that operate on, under, or above the sea to gain or exploit command of the sea, sea control, or sea denial and/or to project power from the sea. (DOD Dictionary. Source: JP 3-32)

maritime power projection. Power projection in and from the maritime environment, including a broad spectrum of offensive military operations to destroy enemy forces or logistic support or to prevent enemy forces from approaching within enemy weapons' range of friendly forces. (DOD Dictionary. Source: JP 3-32)

maritime security operations. Those operations to protect maritime sovereignty and resources and to counter maritime-related terrorism, weapons proliferation, transnational crime, piracy, environmental destruction, and illegal seaborne migration. Also called **MSO.** (DOD Dictionary Source: JP 3-32.)

maritime superiority. That degree of dominance of one force over another that permits the conduct of maritime operations by the former and its related land, maritime, and air forces at a given time and place without prohibitive interference by the opposing force. (DOD Dictionary. Source: JP 3-32)

maritime supremacy. That degree of maritime superiority wherein an opposing force is incapable of effective interference. (DOD Dictionary. Source: JP 3-32)

naval operation. 1. A naval action (or the performance of a naval mission) that may be strategic, operational, tactical, logistic, or training. 2. The process of carrying on or training for naval combat to gain the objectives of any battle or campaign. (DOD Dictionary. Source: JP 3-32)

numbered fleet. A major tactical unit of the Navy immediately subordinate to a major fleet command and comprising various task forces, elements, groups, and units for the purpose of prosecuting specific naval operations. (DOD Dictionary. Source: JP 3-32)

officer in tactical command. In maritime usage, the senior officer present eligible to assume command, or the officer to whom the senior officer has delegated tactical command. Also called **OTC.** (DOD Dictionary. Source: JP 3-32)

open ocean. Ocean limit defined as greater than 12 nautical miles from shore. (DOD Dictionary. Source: JP 3-32)

prevention of mutual interference. In submarine operations, procedures established to prevent submerged collisions between friendly submarines; between submarines and friendly, surface ship-towed bodies and arrays; and between submarines, unmanned

systems, and any other hazards to submerged navigation. Also called **PMI.** (DOD Dictionary. Source: JP 3-32)

riverine operations. Operations conducted by forces organized to cope with the unique characteristics of a riverine area and/or to achieve or maintain control of the riverine area. (DOD Dictionary. Source: JP 3-32)

sea control operations. The employment of forces to destroy enemy naval forces, suppress enemy sea commerce, protect vital sea lanes, and establish local military superiority in vital sea areas. (DOD Dictionary. Source: JP 3-32)

squadron. 1. An organization consisting of two or more divisions of ships or two or more divisions (Navy) or flights of aircraft. 2. A basic administrative aviation unit of the Army, Navy, Marine Corps, and Air Force. 3. Battalion-sized ground or aviation units. (DOD Dictionary. Source: JP 3-32)

submarine operating authority. The naval commander exercising operational control of submarines. Also called **SUBOPAUTH.** (DOD Dictionary. Source: JP 3-32)

surface action group. A temporary or standing organization of combatant ships, other than carriers, tailored for a specific tactical mission. Also called **SAG.** (DOD Dictionary. Source: JP 3-32)

surface combatant. A ship designed to engage in attacks against airborne, surface, subsurface, and shore targets. (DOD Dictionary. Source: JP 3-32)

surface warfare. That portion of maritime warfare in which operations are conducted to destroy or neutralize enemy naval surface forces and merchant vessels. Also called **SUW.** (DOD Dictionary. Source: JP 3-32)

task element. A component of a naval task unit organized by the commander of a task unit or higher authority. (DOD Dictionary. Source: JP 3-32)

task force. A component of a fleet organized by the commander of a task fleet or higher authority for the accomplishment of a specific task or tasks. Also called **TF.** (DOD Dictionary. Source: JP 3-32)

task group. A component of a naval task force organized by the commander of a task force or higher authority. Also called **TG.** (DOD Dictionary. Source: JP 3-32)

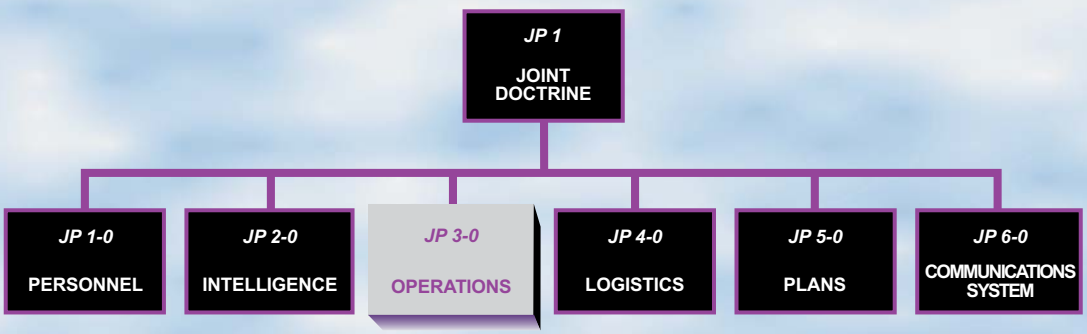
task unit. A component of a naval task group organized by the commander of a task group or higher authority. Also called **TU.** (DOD Dictionary. Source: JP 3-32)

theater antisubmarine warfare commander. A Navy commander assigned to develop plans and direct assigned and attached assets for the conduct of antisubmarine warfare within an operational area. Also called **TASWC.** (DOD Dictionary. Source: JP 3-32)

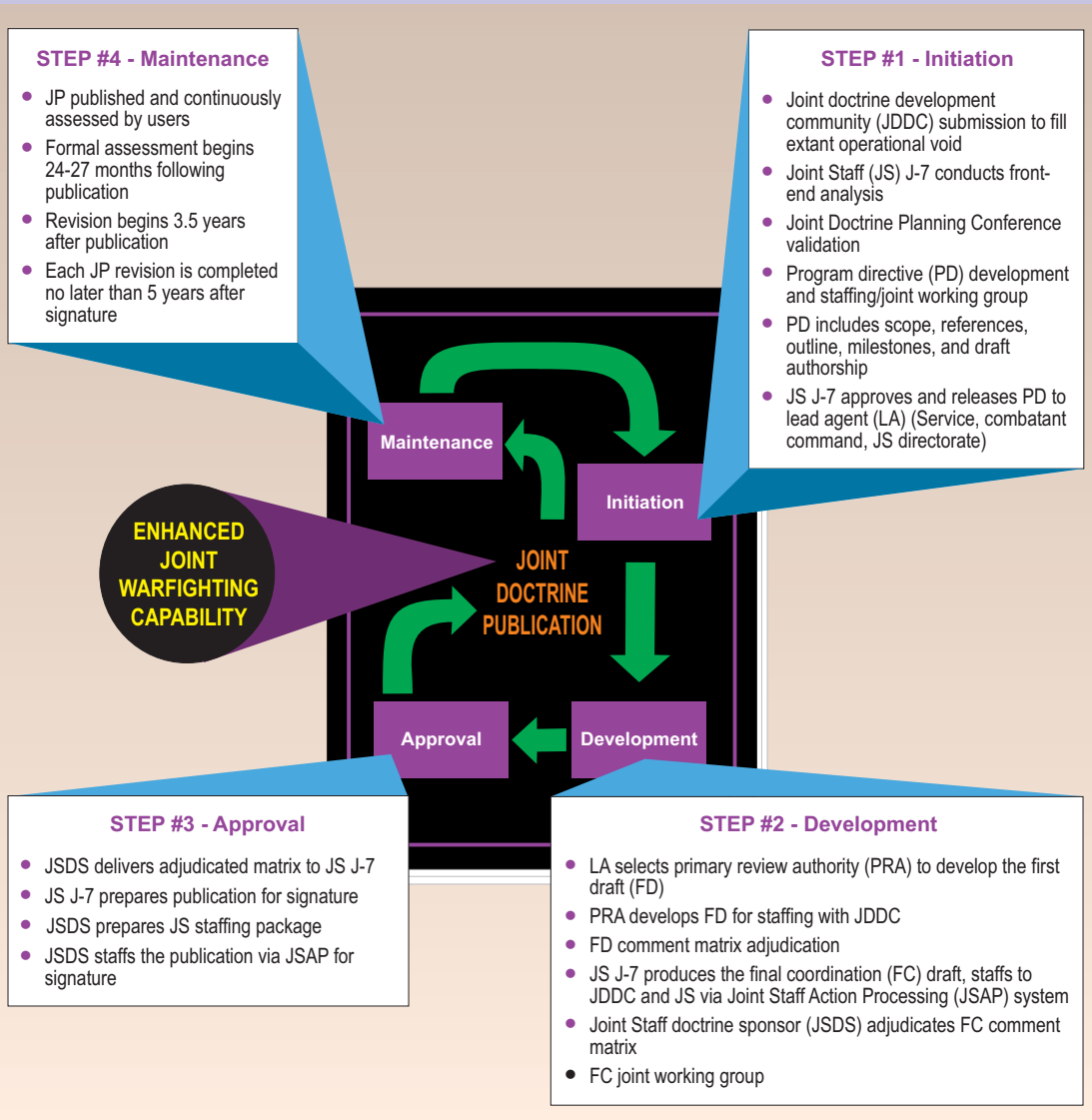
undersea warfare. Military operations conducted to establish and maintain control of the undersea portion of a maritime operational area. Also called **USW.** (DOD Dictionary. Source: JP 3-32)

waterspace management. The allocation of waterspace in terms of antisubmarine warfare attack procedures to permit the rapid and effective engagement of hostile submarines while preventing inadvertent attacks on friendly submarines. Also called **WSM.** (DOD Dictionary. Source: JP 3-32)

JOINT DOCTRINE PUBLICATIONS HIERARCHY



All joint publications are organized into a comprehensive hierarchy as shown in the chart above. **Joint Publication (JP) 3-32** is in the **Operations** series of joint doctrine publications. The diagram below illustrates an overview of the development process:




JOINT
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